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THE ANCIENT EGYPTIANS AND THEIR INFLUENCE UPON THE CIVILIZATION OF EUROPE

BY

G. ELLIOT SMITH

M.A., M.D., F.R.S.

PROFESSOR OF ANATOMY IN THE UNIVERSITY OF MANCHESTER

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A PORTRAIT STATUE OF RA-NEFER,

A MEMPHITE NOBLE OF THE FIFTH DYNASTY

(*circa* 2700 B.C.)

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PREFACE

IN the attempt to explain and interpret the technical evidence derived from an examination of the remains of the earliest known inhabitants of Egypt I have wandered far beyond the geographical limits of that country. It seemed to me that the essential facts of Egyptian anthropology would be seen more clearly and in truer perspective if one tried to correlate events in the Nile Valley with what was happening contemporaneously in the rest of the ancient world.

The recognition of a definitely alien element in the population of the Nile Valley at the time of the Pyramid-builders started me searching beyond the frontiers of Egypt for the source of the immigrants. Early in the enquiry I became convinced that this infiltration of foreigners into the Delta of the Nile was causally related with one of the great migrations; it was a ripple from the great wave of population that was streaming from Asia into Europe at the end of the Neolithic Period.

In my endeavour to probe the meaning of these

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events I came to realize the vast significance of the demonstration given by Professor George A. Reisner, of Harvard University, in 1908, that it was the Egyptians who invented copper implements, and thus inaugurated the Age of Metals.

By employing these two complementary sources of information—studying the paths taken by the Metal-culture in its spread from Egypt and the migrations of the Armenoid population of Asia Minor, as witnessed by the distribution of their characteristic skeletons—many problems relating to the early relations of Africa, Asia, and Europe, which had appeared hopelessly insoluble before, received a simple and obvious explanation.

This line of investigation proved to be so fertile that I decided to develop the argument relating to " the Coming of Copper " as the keynote of the book.

The curious distribution of megalithic monuments and other structures associated with them is explained in a convincing manner by the working hypothesis that I have adopted ; and it is only one of a large series of problems, hitherto regarded as utterly insoluble, that can be interpreted by it.

To have enumerated the large series of original

memoirs consulted during the preparation of this work would have made a bibliography out of all proportion to the size of the volume. It seemed to be more generally useful to insert, at the end of the chapters, references to general treatises, which give further information concerning the matters under discussion, as well as copious references to original sources of information.

Some indication is given in the course of my narrative of the extent of my indebtedness to Professor Reisner for material, for information, and for the inspiration of much of what is set forth here ; but it is impossible for me adequately to acknowledge his innumerable acts of kindness during the last eleven years. It is hardly necessary to add that he is in no way responsible for the views advocated in this book, much of which is likely to meet with no criticisms more forcible than his.

I have received the most generous help at all times during the last eleven years from Mr. J. E. Quibell, Mr. Albert M. Lythgoe, Mr. A. C. Mace, Dr. Randall-MacIver, and Sir Gaston Maspero.

Without the enthusiastic support of Dr. H. P. Keatinge, Director of the Cairo School of Medicine, I should not have been able to begin the work,

some of the results of which are set forth here; and to him and Professor A. Macalister, F.R.S., of Cambridge, who was responsible for my going to Egypt, I beg to express my thanks.

For the opportunity of sharing in the work of the Archæological Survey of Nubia, which has played so large a part in shaping my views, I have to thank Captain H. G. Lyons, F.R.S., formerly Director General of the Survey Department in Egypt.

During the progress of my investigations Professors Macalister and Keith kindly permitted me to study the valuable material in their keeping; Professors Boyd Dawkins, F.R.S., and Hogg and Dr. Haddon, F.R.S., lent me a good deal of literature that would otherwise have been inaccessible to me; and in the actual work of investigation I was helped by Dr. Douglas E. Derry and Dr. Frederic Wood Jones.

G. E. S.

MANCHESTER,
July 1*st*, 1911.

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THE ANCIENT EGYPTIANS AND THEIR INFLUENCE UPON THE CIVILIZATION OF EUROPE

CHAPTER I

INTRODUCTION

THE NEW KNOWLEDGE OF ANCIENT EGYPT

RECENT years have witnessed a truly remarkable increase in our knowledge of those generations of mankind, of whom, as the writer of Ecclesiastes expresses it, there is no remembrance ; and no country has been so fruitful as Egypt in yielding a harvest of information concerning early Man and his works that is not only surprisingly abundant, but also possesses the even more valuable quality of precision, both as to time and circumstance, which makes it reliable as evidence.

Three circumstances, however, in addition to these general claims on our consideration, combine to render the present moment a singularly favourable one for attempting a new appreciation of the position occupied by the Ancient Egyptians in the army of progress that conquered the world

for civilization, and of the precise rôle this interesting and much misunderstood people played in moulding the history of the world and its culture.

In the whole history of mankind no single factor has had an influence so great and so far-reaching as the discovery of metals. In a thousand ways it raised the arts of civilization to a higher plane, and gave so marked a stimulus to progress that by contrast the Stone Age seems to us metal-users the very embodiment of inertia. It did much more, however, than merely quicken the pace of invention, and stimulate the advancement of the arts and crafts : it widened the scope of human endeavour, and, as Dr. Reisner has shown, was not without influence even on the moral and intellectual qualities of its users. For the confidence that was bred of the knowledge that implements of metal were superior to those of stone awakened courage and the spirit of great adventure.

For many years the ingenuity of scholars has been taxed to its uttermost in the search for the authors of the fateful discovery, which was responsible for this first and greatest world-encircling revolution in the affairs of men. Whole shelves of libraries are filled with the records of this quest, which has come to be looked upon almost as the pursuit of a will-o'-the-wisp, which flits from the centre of Europe, to Spain or Britain, or in the opposite direction to Asia Minor, Babylonia, or even the Far East, to China, Japan and America,

or again, in a southern direction, to some part of the dark continent of Africa, only to elude the searchers whose efforts to locate the inventors of the instruments of metal have been so often doomed to disappointment.

Yet ever since the year 1894 Egypt has been displaying the full story of the coming of copper, complete in every detail and circumstance, written in a simple and convincing fashion that he who runs may read. But of the many who have spelt out the letters of this story during these seventeen years, no one seemed to have read the words or understood their vast significance until Dr. Reisner, in 1908, called attention to the very clear and precise record, preserved in the predynastic graves of Upper Egypt, of that country's great contribution to the knowledge and material prosperity of the world, when her sons discovered copper and invented metal tools and weapons.

Professor Montelius, in 1900, summarized the evidence that points so clearly to Egypt as the home of the working of copper (" Die Chronologie der ältesten Bronzezeit," etc., *Archiv. für Anthropologie*) : but with strange perversity drew the conclusion from it that the Egyptians got their knowledge from Asia !

Perhaps it is not strictly accurate to attribute the credit for this discovery wholly to the masculine portion of the proto-Egyptian population : for, like many of the great events that ruffled the

surface of the ancient world, and brought wars and revolutions, it is more than probable that the discovery of copper was due, in part at least, to the habits of their women. They supplied the predisposing circumstances of the discovery, even if they did not actually produce the metal from its ore.

It was the custom of the proto-Egyptian women, and possibly at times of the men also, to use the crude copper ore, malachite, as the ingredient of a face paint ; and, for long ages before the metal copper was known, this cosmetic had been an article of daily use.

It is quite certain that such circumstances as these were the predisposing factors in the accidental discovery of the metal. For on some occasion a fragment of malachite, or the cosmetic paste prepared from it, dropped by chance into a charcoal fire, would have provided the bead of metallic copper and the germ of the idea that began to transform the world more than sixty centuries ago.

Charles Lamb's famous story of the discovery of the virtues of roast pork, which for the sake of greater piquancy he attributed to the Chinese, might be transformed, with only comparatively slight modifications, into an imaginary picture of the discovery of copper by some proto-Egyptian woman, as the result of some similar domestic tragedy. Lamb showed a true insight into the workings of the mind of primitive man when he

represented him burning his house every time he wants roast pork for dinner, simply because he first obtained that delicacy by the accidental burning of his house, in which the pigs were incarcerated. By an analogous mental operation, when the proto-Egyptian began to realize the use to which copper might be put for the manufacture of implements, he began to make them in the exact semblance of his stone weapons and tools.

But even this he did not attempt for many years after he discovered copper. It appealed to him at first as a substance resembling gold, with which he was already familiar, and he employed it for making bands, possibly used for personal ornaments. He soon learned to make small pieces of wire, which, when bent into a loop at one end, became needles. Then came the later stage of manufacturing tools and implements in imitation of the flints he had been using up till this time. But it was not until many years, perhaps even centuries later, that he learned to cast the metal in moulds and make large blades—implements of the crafts, the chase, and warfare—the designs of which were not limited by slavish imitation of stone implements.

Every stage in the history of the discovery and the evolution of the working of copper is represented in Egypt, and is preserved under circumstances that enable us to appreciate in some measure the motives which led the Egyptians on, step by step,

to the full realization of the immensity of the power they had thus acquired.

In no other country has a similarly complete history been revealed, and it is quite inconceivable that two neighbouring peoples made the discovery of copper independently at about the same time : in other words, it is idle to refuse the due recognition of the claim now being made for Egypt of having forged the instruments that raised civilization out of the slough of the Stone Age.

For many years the discussion of the problems of the great world-revolution inaugurated by the advent of the Age of Metals has wandered somewhat aimlessly, like a rudderless ship, amidst the great ocean of conflicting possibilities. With no certain knowledge as to the location of the centre from which the influence of the new leaven was being diffused, historians were unable to decide in which direction a particular wave of metal-users' culture was moving ; for they were not sure which was the periphery and which the centre of its sphere of action. In this state of uncertainty, which is only a stage removed from chaos, events like the dual pathway of entry of copper into Europe—simple and obvious enough when we are sure that the two divergent routes start from Egypt and pass in different ways around the Mediterranean —become utterly enigmatic and often apparently hopelessly inexplicable.

With the definite localization of the discovery

of copper in Upper Egypt, a whole host of difficulties that have obscured the real history of the close of the Age of Stone in Europe ever since scholars turned their attention to that problem, vanish at once ; and as we follow the irradiation and diffusion of the knowledge of copper from its Egyptian home, the new light can be watched as it penetrates the mists that have so long enshrouded the coming of metals and dissipates the clouds that have hitherto obscured the vision of historians in their study of the dawn of European civilization.

This new illumination of Egypt's great service to humanity, and of all that followed in its train, would alone have sufficed to justify a new attempt being made at the present time to appreciate the part played by Egypt in moulding the world's civilization.

But there are two other factors that contribute in no small measure to make this the psychological moment for such an attempt.

Until the present time the systems of chronology adopted by most scholars in reference to the earlier historical periods in Egypt, Babylonia, and the other nations of antiquity, have been so varied and so misleading, that it has not been possible to form any just conception of the relative antiquity of the different civilizations or to picture Egypt's relations to her neighbours at any time more remote than 1500 B.C.

When the discrepancy between the estimates of the date of the amalgamation under one sovereignty of the two kingdoms of Egypt ranged from 3300 B.C. to 4800 B.C., or even to more than the sixth millennium B.C., and the figures assigned as the age of the dawning civilization of Babylonia were exaggerated in a manner even more disconcerting, it was out of the question to decide which events were contemporaneous in these two civilizations, or whether a particular development in the one State was subsequent to or the precursor of a similar phenomenon in the other. In other words, it was not possible to make any just estimation of the possible mutual influence of one upon the other.

Most serious scholars who concern themselves with the problems of the ancient history of Egypt and Babylonia have now abandoned these inflated estimates of the lengths of the historical periods in the two Empires ; and it is now generally admitted that Meyer's estimate of 3400±100 B.C. is a close approximation to the date of the union of Upper and Lower Egypt ; and that the blending of Semitic and Sumerian cultures in Babylonia took place shortly after the time of this event in the Nile Valley.

The importance of being able to synchronize events in the two Empires, on the banks of the Nile and the Euphrates respectively, and to determine whether a particular cultural develop-

ment in one precedes or follows a similar event in the other, is not to be measured wholly as the mere arranging of these historical facts in an orderly sequence, or even as the determination as to whose is the merit of initiating each new phase of development : the actual dates of so many important Egyptian events are known with a close approximation to the actual figures of the years in which they occurred that Egypt has become the chronometer for the histories of all peoples of antiquity whose doings can be shown to be contemporary with Egyptian events.

The means thus acquired of assigning precise dates to historical events in Egypt and determining the sequence of innovations among the various peoples of antiquity enable us to follow the spread of the knowledge of copper among the nations, and also to appreciate its influence upon civilization in a manner that would have been impossible of realization, if these two favourable circumstances had not occurred in conjunction the one with the other.

But there is a third circumstance, without which even the other two would have been little better than broken reeds as supports to any far-reaching hypothesis of the course of ancient history. I refer to the recently acquired knowledge of the remains of the people themselves, and the positive evidence they afford of the nature and affinities of the ancient Egyptian population. It is this aspect of the question that led me to undertake the writing of

this book : for the other two circumstances, being matters of a purely archæological nature, can only be dealt with in an adequate manner by those whose special scholarship entitles them to estimate the value of such evidence. But while considering the racial problems in the light of my own investigations of the anatomy of the ancient populations, and studying the movements of peoples which such researches clearly demonstrate, I have found so much evidence of a confirmatory and supplementary nature in the writings of archæologists that I have not hesitated to make free use of such information. At the same time it is my duty to inform the reader in the most specific way that I lay no claim to the right to express any opinion on archæological matters, although I have borrowed freely from the writings of scholars whose authority is very widely recognized.

It may be a matter for surprise that I should speak of the knowledge of the human remains as being newly acquired, when there is the literary product of a century's activity on the part of a numerous array of anatomists and others, who have been discussing this aspect of the problems of Ancient Egypt since the year 1811, when Blumenbach, in the light of modern knowledge, recommenced the consideration of a subject which had exercised the Greek and Roman philosophers and a host of mediæval historians.

In the life-like portraits, cut as bas-reliefs and

statues, the Ancient Egyptians themselves made some of the most valuable anthropological records that have come down to us from ancient times; and the classical Greek and Roman writers, who have given us their own impressions of the various peoples, as well as the traditions current in their time, have made the modern student of Man their debtor. No doubt much of their narrative is pure fantasy; but mixed with it one often comes across scraps of information, derived in some cases from personal observation, in other cases from local tradition, which are in accord with the results of modern research and afford valuable confirmation of them.

Probably the first recorded attempt to distinguish a representative of one race from that of another by an examination of their bones was made more than four centuries before the commencement of the Christian era by Herodotus, who tells us that he was able to discriminate between the skulls of a Persian and Egyptian respectively from the fact that the latter was the thicker of the two. This observation has proved to be of evil omen to craniology, and sadly anticipatory of much modern work in this domain of research, for the supposed distinction is false.

Most of the investigations of the physical characteristics of the Ancient Egyptians that the last hundred years have produced in such abundance have led to comparatively sterile results.

Two distinct causes are responsible for this unsatisfactory state of affairs, which has led the historian (and, one is bound to admit, not without ample justification) to view with grave suspicion the assistance proffered by the anthropologist. It is possible, however, to make the dead bones tell their tale ; but the story they tell must of necessity lack cogency and meaning to the historian if the date and provenance of the bones are unknown. Yet most of the material from Egypt upon which anatomists have brought their knowledge and experience to bear during the last century has not been worth their attention, because its source was doubtful, or worse. The light such material shed upon the anthropology of Egypt cannot be other than as vague and uncertain as, for example, would be the knowledge of the history of America that might be acquired from the study of a series of bones, however skilfully conducted, and however great their number, if the investigator had no means of knowing whether they were pre-Columbian or nineteenth century in age, or whether they came from an English cemetery in Massachusetts, an Indian mound in Ohio, or a Chinese burial-ground in San Francisco ! Can there be any surprise, therefore, that the anthropological record has not been of much help to the historian ?

Moreover, the first material that could throw any definite light upon the physical characteristics and racial affinities of Egypt's earliest population

did not begin to come to light until the year 1894, and several years elapsed before the nature and significance of these prehistoric remains were appreciated. But, even then, many facts revealed by the comparison of these early bones with those of the later inhabitants of Upper Egypt still remained unexplained, and were a source of confusion, and it is only during the last six years that the material which was destined to supply the data to clear away these difficulties began to come to light. It was my singular good fortune to have had the opportunity of studying all of this important material.

Another reason for the unsatisfactory results obtained from the study of human remains in Egypt is the nature of the means so often adopted to wrest from the bones the story graven in their structure. Egypt seems to have exercised a peculiar fascination upon the amateur anthropologist, the man who weaves, in the case of each individual whose skeleton comes up for study, marvellous stories of strange habits, and afflictions no less mysterious, upon the basis of some structural feature, which a modicum of anatomical knowledge would have shown to be common to the whole of mankind; or, again, who from a few measurements of bones extracts infinitely more information than Nature put into the mere dimensions of the things measured when she shaped their forms and determined their sizes.

These, however, are matters that can well be put aside while we turn our attention to the positive source of information that counts, and is of real value to the historian.

Now for the first time we are in possession of accurate information of the physical characteristics and affinities of the earliest inhabitants of Egypt, and a considerable number of facts concerning the precise times at which they became mixed with aliens, the distinctive features of the latter, and the manner in which the admixture took place.

Such knowledge has been unattainable hitherto, and it is the possession of this great mass of newly-acquired facts that is my justification for writing this book.

For further information in reference to the coming of copper and the other matters dealt with in this chapter the reader is referred to Dr. George A. Reisner's *The Early Dynastic Cemeteries of Naga-ed-dêr* (University of California Publications, 1908) and the Report for 1907–8 of Archæological Survey of Nubia.

For destructive criticisms of the commonly accepted views on the problems of the introduction of metals Dr. Laloy's review of Montelius' work in *L'Anthropologie*, 1901, pp. 719–22, and Professor Ridgeway's *Early Age of Greece* may be read with profit.

CHAPTER II

THE DEBT OF CIVILIZATION TO EGYPT

THE writings that embody the achievements of modern scholarship and fill the swollen shelves of our libraries will be searched in vain for any just appreciation of the influence exerted by Egypt's early culture on the nascent civilization of Europe and the world at large. In making this statement I am not unmindful of the fact that within recent years the genius and perspicuity of the Italian anthropologist Sergi have riveted attention upon Africa as a source of important elements in Europe's population and culture: but the precise rôle played by Egypt, and the manner in which her influence was exerted, have never been explained.

The very wealth of material which Egypt has spared from ancient times seems to have so monopolized the attention of those who have devoted themselves to its study that the relation of Egyptian history to that of the world at large has been often lost sight of by those best fitted by their special knowledge to appreciate it.

Thus Egyptian civilization has come to be looked

upon as something exotic and alien to European culture, and no adequate consideration has been given to an estimation of the place which Egypt should occupy in the scheme of the world's history.

The more obvious debt to Asia has been amply acknowledged, if not unduly exaggerated, during the present generation.

The fact that Europe derived a not inconsiderable element of the very flesh and bone of her population from Asia, and with them the main elements of the speech of most of her peoples, as well as part of her literary tradition, is widely acknowledged. The opposition of a small minority of scholars to the recognition of this obvious truth has been overwhelmed by a flood of incontrovertible evidence, which makes it no longer possible to refuse to admit the Oriental source of these material and cultural contributions to Europe. New evidence from Egypt will be brought forward in this book—the testimony of an impartial witness of the Asiatic stream into Europe—to indicate the reality of Asia's donations.

Whatever view one may take of the potency of environment to broaden the skull and mould the physical characteristics of a population—even if we accept at its face value the remarkable report * presented to the United States Senate by Professor Boas—such an influence cannot be invoked to

* "Changes in Bodily Form of Descendants of Emigrants." Washington, 1910.

explain the sudden appearance in Europe towards the end of the Stone Age of broad-headed people with physical traits sharply differentiated from those of their contemporaries and predecessors. For people presenting these distinctive peculiarities appeared at this epoch, not only in the Alpine highlands, but also in valley and plain ; on the warm southern shores and the bleak north-west ; and not on the continent of Europe only, but also in the British Islands and the isles of the Mediterranean, as well as on the African shore, from Egypt even unto Morocco and the Canary Islands. By no stretch of the imagination can environment be used to explain the diffusion of this distinct and well-defined racial type into regions exhibiting every variation of heat and cold, of moistness and dryness, of altitude, and every other changing factor in the circumstances and mode of living covered by the expression "environment."

And if the reality of the immigration of the people into Europe be admitted, how can we refuse to recognize her indebtedness to Asia for languages, for customs and beliefs, for arts and crafts, for the learning of Ancient Babylon and the Oriental debt of Greece, to whose ancient civilization Europe became heir ?

Amidst all the discussions that have raged around these problems of the nature and extent of Asia's sway in Europe, and of the manner in

which it was able to impress itself upon the West, the more ancient, and at the same time more intimate and subtle, influence of Egypt has received little or no consideration.

The very fact that Egypt's culture began to be a power in Europe at an exceedingly remote period, long before the dawn of history and the contact of Asia with Europe, makes it all the more difficult for us to realize the sway she exerted.

The Asiatics entered Europe as foreign immigrants, bringing an alien culture, the impress of which is blazoned upon her civilization in a manner that obtrudes itself, simply because it is alien. Egypt's relations with the Western world were of a totally different nature.

If there is one fact more than another that can be said to have been definitely established by modern anthropological research, it is the certainty that the Proto-Egyptians were linked by the closest bonds of racial affinity to the Early Neolithic populations of the North African littoral and Southern Europe. My own investigations corroborate the conclusions in regard to this matter obtained by other means by Professor Sergi, and set forth in his *Mediterranean Race.* It is equally certain that Egypt was the first of these kindred nations, scattered around the Mediterranean, to raise herself in culture above her peers and cast off the trammels of the Stone Age. It was not only the chance discovery of copper that lifted

Egypt above her contemporaries, for she had already displayed her pre-eminence in the working of flint before the coming of metals.

The community of origin of this group of kindred Neolithic peoples explains the similarity of many of their customs and beliefs ; but the adoption of precisely similar practices, many centuries after the wide dispersal, cannot be wholly accounted for, either by a common parentage or a parallel evolution of ideas, the germs of which existed amongst the community of peoples before their geographical separation.

The sudden appearance in one branch of this family of nations of customs, every stage in the evolution of which is displayed in the monuments of another branch, is evidence of the most positive and conclusive kind that some sort of interrelation was maintained between these kindred peoples, by virtue of which one was able to influence the others. It would be a wholly mistaken and untenable contention to pretend that the sister nations of Egypt in the Mediterranean group, her co-heirs in the traditions that all shared alike, did not also each evolve from the common heritage a distinctive culture peculiar to itself. Europe did not borrow the whole, nor perhaps even the major part, of her civilization. But, as the most precocious member of the family, it is more than probable that Egypt may have given more than she received from the others ; and as she acquired new

knowledge and skill in the arts—in other words, as she gradually emerged from the Neolithic stage of culture, while the rest of the world was still unenlightened by the new knowledge—the subtle influence of her example spread far and wide, from neighbour to neighbour, amongst the kinsmen of her people, and slowly raised them also.

Thus Egypt brought her influence to bear on the springs of European civilization, not by the violent imposition of an alien culture, as in the case of Asia at a later age, but by raising the members of her own family group of peoples to a higher plane of knowledge and skill through the force of her example.

The very subtlety of the mode of operation of this domestic influence makes its reality difficult to substantiate by tangible evidence. Nevertheless the fact is certain, as the whole argument of this book will show. But one specific instance may help to convince the reader that I am not dealing merely in vague generalities.

The essential identity of the burial customs of the Early Neolithic Europeans and of the Proto-Egyptians is generally admitted. But the Italian archæologists who have been excavating in Sicily and Southern Italy discovered that a profound change in the mode of burial occurred quite suddenly in Southern Italy at the end of the Neolithic Age, which Professor Orsi has called the "*periodo eneolitico.*" This has been the subject of much

discussion among scholars, who have been, and in fact still are, quite puzzled and at a loss to explain how such a change can be interpreted, seeing that Italy supplies no transitional stages to bridge the chasm by showing a gradual evolution from Neolithic practices: nor is there any evidence of an alien immigration of sufficient magnitude to have introduced the new customs, especially when we take into consideration the fact that there is nothing that a primitive people clings to so tenaciously as its mode of burial.

Yet in Southern Italy, during the Æneolithic Period, the old custom of burying the dead, lying bent up on the left side, in shallow holes scraped in the soil, was suddenly given up ; and it became the rule to undertake the laborious task of cutting burial chambers out of the solid rock, or of erecting tombs of stone, in which the corpse was buried in a fully extended position, lying on the back, or slightly flexed lying on the side. No theory of parallel development can be seriously adduced to explain these curious changes, when I state that these Æneolithic practices in Italy are an exact reproduction of those adopted by the Ancient Egyptians between the Fourth and Sixth Dynasties ; and, as Egypt not only supplies the evidence of every stage in the gradual evolution of these new methods of sepulture from the common Neolithic type of burial, but also sheds some light upon the motives that impelled the Egyptians to

introduce the changes—a process of transformation, moreover, none of the transitional stages of which have come to light elsewhere—we must regard this as conclusive evidence that the Æneolithic Italians adopted this custom from their kinsmen in Egypt.

Thus Egypt, by virtue of "the crimson thread of kinship," was able to bring her influence to bear upon the springs of European civilization in two distinct ways. There was the community of early customs and the natural sway the most precocious member of the group must have exercised in moulding the beliefs, the habits, and the arts of the whole. But this blood relationship exercised a still more potent influence in that it facilitated the continuation of the intercourse between the sister nations, after they had become scattered; and it permitted one member to adopt new customs from others of the family group, in a way that would not have been possible if they had been aliens the one to the other or harboured suspicions of foreign innovations. Thus the outstanding achievements in culture and the arts on the part of any one nation helped to raise the whole family group; and, as the individual people of this group which earliest attained a position of pre-eminence, the Egyptians, by the force of their example, were able to lead their European relations out of the wilderness of the Stone Age into the promised land of the higher stage of civilization.

Within recent years a very considerable mass of evidence has been accumulating, which demonstrates the courses taken by various streams of such influence radiating from Egypt, in one case to Crete, "the forerunner of Greece"; in another to Sicily and Italy, which became another centre of irradiation of culture in Europe; and in yet a third instance to Mauretania, thence to the Iberian peninsula and the whole of Western Europe.

Far-reaching though the effects of this kinship of the early populations of Northern Africa and Southern Europe were, they by no means exhaust Egypt's contributions to the factors that moulded European civilization, for, as we have seen in the introductory chapter, the people of the Nile Valley forged the weapons that put an end to the Stone Age, and thus inaugurated "one of the most important steps in human progress" (Read).

The mode of operation of this third factor presents a striking contrast to that of the others, which I have called domestic. The knowledge of copper was no doubt being diffused among the kindred nations of North Africa, and was filtering into Europe by the Mediterranean routes: but the main stream of the influence of the Metal Age, which overwhelmed that continent, certainly came from the East. But, if we admit that Asiatic immigrants were the chief importers of the knowledge of copper, it cannot be denied that they were

able to establish themselves in Europe in large numbers at the end of the Neolithic period, and impress their alien culture on that continent, simply in virtue of their possession of metal weapons and tools, which the Egyptians had invented, and the knowledge of which the Asiatics had acquired from them in their intercourse in Syria. In other words, the passport of the Asiatics into Europe was their knowledge of the use of metals, and this they acquired from the Egyptians in Syria and Asia Minor.

On these grounds alone, that is, in virtue of her positive contributions to the world's civilization, Egypt should occupy a place of special distinction in the temple of anthropology.

But she has other claims, of a nature vastly differing from those we have been discussing, which give her a unique position in the estimation of the student of mankind. Her active work for civilization was accomplished several millennia ago, and its results will endure for ever: her passive rôle it was to preserve for the edification of modern scholars the records of the remote past, and to enable us of the present time to realize the sources of much of our enlightenment and the manner of its coming.

Egypt's geographical position and her climatic conditions, and all that has followed in the train of these natural circumstances, have combined to make her, in a greater measure than any other

land, the custodian of the archives of early history.

The exceeding dryness of her climate and the fringing deserts, which became the natural burying-places of her dead, not only preserved the mortal remains of untold thousands of her people and their works in all ages, but also were responsible for suggesting to her people the idea of the necessity of the persistence of the corpse as a condition of the attainment of immortality (see "The History of Mummification," Glasgow Royal Philosophical Society's Proceedings, 1910). This in turn impelled the Egyptians to lavish every care on the bodies of their dead, not only for their preservation by artificial means, but also for housing them in a manner befitting this religious conception of their importance, and surrounding them with all the paraphernalia needed for the attainment of a material resurrection. This aggrandizement of the tomb and the religious care taken of it have led to the preservation of the most complete record that has come down to us from any people of antiquity—not only literary documents and material illustrative of the people's habits and skill in the practice of the arts and crafts, but also the most valuable kind of anthropological records, namely, the mortal remains of the people themselves in untold numbers, found in association with objects that enable the archæologist to assign to each its date and status. Their custom of repre-

senting themselves, often in a most realistic and life-like manner, in statuary and bas-reliefs in tombs and temples, has left us in no doubt as to their appearance in the flesh, even at the most remote ages of the historic period ; and their pride in depicting their foreign triumphs, their captives, and those that brought tribute or suffered defeat in battle, has preserved a valuable record of the contemporary peoples of antiquity with whom the Egyptians came into touch. In the bones found in the tombs we are also able to detect the influence of this contact with aliens, and to form some conception of the physical characters of the other nations of the ancient Orient.

The distinctive rôle that Egypt played in the history of the world was to a great extent the result of her peculiar geographical situation, which was also a potent factor in moulding her own culture into the form it assumed.

Sequestered in the north-eastern corner of Africa, Egypt has been in intimate contact with the Mediterranean littoral and Western Asia from the most remote ages. She was so situated as to be shielded from the danger of being overrun by the peoples of these lands, yet sufficiently in touch with them to feel the stimulus that comes from mingling with people of different traditions and ideas. In other words, Egypt was adequately isolated to be free to develop her own civilization without interference from outsiders, yet at the

same time so closely in touch with the world at large to be spared the fate of nations that are utterly isolated.

A narrow ribbon of exceptionally fertile soil, providing an easy and ample means of sustenance, and endowed with a genial and beneficent climate, free from the enervating influence of extreme heat as well as from the rigours of great cold, the Nile Valley provided an ideal home for primitive man. The exceptionally fertile soil, renewed annually as the gift of the river, yielded rich pasturage for his flocks and abundant crops in return for a minimum of toil: the river and its banks provided an ample supply of easily obtained fish, meat, and poultry: it was indeed a land flowing with milk and honey. It was amidst this plenty and freedom from the trials which Nature and the danger from rival nations inflict upon the inhabitants of most other parts of the earth, that the genius of the Ancient Egyptians took root and flourished, protected from disturbances from without by the broad stretches of insulating desert on each side, and from violent and far-reaching commotion within by the attenuated, ribbon-like form of the land itself.

With no rigours of climate to fight, neither houses nor clothing were matters of vast importance; with no great dangers of foreign foes there was no need for any special devotion to military practices: with ample means of livelihood easily obtained, the

early Egyptian had ample leisure in which to cultivate the arts and crafts, and to attain the early pre-eminence in these accomplishments that was his great distinction.

Living on the natural bridge across the great African desert that led to the home of the Negro, the Egyptian or his southern kindred were the first people to come into contact with the Black man, to mingle with him, and to be influenced by his beliefs and customs.

All these circumstances combine to enhance the peculiarly distinctive position occupied by Egypt sixty centuries ago, and to emphasize her unique claims upon the student of Man.

In addition to Sergi's book (*vide supra*, p. 18) useful summaries of literature relating to the matters discussed in this chapter will be found in Professor Ripley's *Races of Europe* and Mr. Keane's *Ethnology* and *Man, Past and Present*, although both of these writers subscribe to views which are not in accord with the thesis set forth in this book.

CHAPTER III

A RETROSPECT

THE vast monuments scattered through Egypt, bearing the obvious impress of their remote antiquity, have ever excited the wonder of visitors to that country, and stimulated their curiosity concerning the origin and antecedents of the people who created these marvellous works. The classical Greek writers have transmitted to us a great deal of reliable information as to what manner of men these dwellers on the banks of the Nile were in their time: nor did they content themselves with merely recording their observations or retailing stories gathered in Egypt, but often indulged also in speculations concerning the derivation of the Egyptians.

From that time onward a great stream of literature relating to the people of Egypt has steadily increased in volume through the ages; and every field of investigation has been exploited that could throw any light upon the search for clues as to the origin of the Egyptians. The answers that these different founts of knowledge are said to have yielded are legion. Their variety

ranges through the whole gamut of possibilities into the realm of fantasy; and their mutual contradictions one of another carry the refutation of most of them.

Not a few writers, like the traveller Volney in the eighteenth century, have expressed the belief that the Ancient Egyptians were Negroes, or at any rate strongly Negroid. In recent times even a writer so discriminating as Ripley usually is has given his adhesion to this view, which I consider to be the most serious blot on his most valuable and interesting memoir, *The People of Europe*. A more numerous group of writers have ranged themselves with Volney's predecessor in exploration, Denon (1710), who believed the Egyptians to be of the same race as Europeans; but during the last hundred years the idea that the people of Egypt and their civilization came from Asia, either wholly or in part, has always captivated a numerous band of scholars.

There is an infinite variety in the other suggestions as to the source of the Egyptians. Serious writers have imagined them to be immigrant colonies of Celts, whom they supposed, on the literal interpretation of Cæsar's commentaries, to have come from the far west of Europe; others, again, have spoken of Mongolian affinities, and brought the Egyptians from the remote east; in recent years the finding of steatopygous dolls in Ancient Egyptian and Nubian graves has been

used as an argument that there is some Bushman element in the Egyptian, or at any rate some affinity with the autochthonous population of the extreme south of the African continent.

Other writers have called the Egyptians " Indo-polynesian," and even so great a biologist as Huxley, whose views were usually distinguished for their remarkably clear insight, fancied that he detected affinities with the aboriginal Australian—a statement that Owen lost no time in controverting. There is no limit to the relationships that have been suggested with Arabs and other Semites, Libyans and their allies, and, in fact, with every one of the peoples who have lived in neighbouring lands.

Hence, if we take cognizance of those who have given still freer rein to their imaginations, and speculated on the possibility of bonds of union linking Ancient Egypt and South America, we find that hardly any spot in the habitable earth has escaped being indicated by some writer or another as the home of the ancestors of the Egyptians, as the habitat of a population linked by bonds of affinity to them, or as the source of some element in their culture.

But before the end of the nineteenth century most historians had deserted this realm of cloudy speculation and idle fancy ; and the problem had become circumscribed within the limits of the

questions, (*a*) whether or not the Egyptians were autochthonous in the Nile Valley, and (*b*) to what extent, if at all, were they indebted to Western Asia and Central Africa for the materials or the inspiration of their distinctive culture ?

In the middle of the nineteenth century the researches of philologists and the discoveries of archæologists were commonly supposed to have lent support to the kind of interpretation most people drew from the Biblical story of the Garden of Eden and the scattering of mankind after the Deluge. The idea was fostered that all races of mankind had set out from some spot in Mesopotamia, and had become scattered throughout the earth, carrying with them ready-made, as it were, all their arts, sciences, languages, and religions. From this supposed cradle of civilization Europe was said to have received not only her languages and her civilization, but even her population ; and it is not surprising that Ancient Egypt, being so much nearer to this Western Asiatic centre of culture, both in place and time, should have been looked upon as being at least as deeply indebted to Asia, for her population as well as for her knowledge, her language, and her general enlightenment.

Even such eminent scholars as de Rougé, Heinrich Brugsch, and Ebers, among many others, claimed that Egypt derived her language as well as much of her culture and knowledge of the arts from

Asia ; and Hommel and others went much further, and claimed that the whole Egyptian civilization was Babylonian in origin. Among recent historians and archæologists there are comparatively few who do not make some demand on Babylonia in their attempts to explain Egypt's early pre-eminence in the arts and culture (see, for example, Montelius, *op. cit. supra*).

De Morgan and his collaborators claim that the Ancient Egyptian language and mode of writing, the importation into Egypt of the knowledge of metals, and of such crafts as brick-making and tomb-construction, and even the fauna and flora of the country in ancient times, all point to Babylonia as the place where the roots of Egyptian civilization should be sought.

But, under Dr. Reisner's critical analysis of the foundations upon which these speculations were supposed to have been based, practically the whole of the elaborate edifice has tumbled to the ground. As Eduard Meyer has said, " the suggestion that a culture, or even its chief elements, can be derived from another people is unthinkable and historically false : but influences must have been at work, and the Egyptians and the Babylonians must have given and taken."

All that remains of the supposed facts upon which De Morgan based his far-reaching hypothesis is the possibility that the Egyptians may have borrowed the *ideas* of burning bricks and making

cylinder seals and pear-shaped mace-heads—surely a slender basis, even if proved, which is by no means the case, upon which to build a theory of Asiatic influence ! For even if the Egyptian did not discover these things of his own initiative, a single traveller might have conveyed the information to the Egyptian artisan, or perhaps from the Egyptians to the Babylonian, for there is no certainty as to which was the borrower. One does not claim a Mongolian influence in the development of modern British civilization because Chinese fans are used in England.

Dr. Reisner has proved the indigenous origin of Egyptian civilization in the Nile Valley, and has revealed the complete absence of any evidence to show, or even to suggest, that the language, the mode of writing, the knowledge of copper, or the distinctive arts and crafts were imported.

But, as Meyer has said, there must have been some intercourse between the ancient Empires of Egypt and Babylon, and some give and take in ideas and in material. No population living on a great continent can ever be so hedged around as to be free from the influence of other peoples ; and, in spite of the geographical barrier imposed by the great Syro-Arabian desert thrust up between Egypt and Babylonia—a buffer against free intermixture—there must have been some contact between the two peoples. To quote Meyer again, it is certain that they must have met in the

markets of Syria as well as in the tents of the Bedawin of Arabia.

Schweinfurth argued that the "invaders" of Egypt—the stereotyped phrase used by so many writers, tacitly assuming as a fact the idea of an immigration into Egypt—came from Southern Arabia (Sabæa or Hadramut), across the Straits of the Bab el-Mandeb, thence through Abyssinia and the Eastern Desert into Nubia, from which they spread along the banks of the Nile into Egypt (see map on page 73). The reasons urged in support of this hypothesis were that the sycamore tree and the *Persea*, plants indigenous to Arabia Felix, were cultivated in Egypt from the most remote times, as is shown by inscriptions as old as the earliest Pyramids. But even if it could be proved that these trees were actually brought from Arabia, this can only be used as evidence to prove that there was some intercourse between the Sabæans and the Egyptians, and is no proof of a racial movement. As a matter of fact the writings of the Egyptians themselves (quoted by Meyer and Breasted) contain the account of a trip to the southern extremity of the Red Sea for the purpose of obtaining the products of Punt and the Frankincense Country (Hadramut), which was undertaken during the reign of the first king who is known to have built a Pyramid.

Lortet and Gaillard, the most recent writers to discuss the fauna of Ancient Egypt, protest against

the conclusions of Duerst that certain of the domestic animals of Ancient Egypt were brought from Asia; and they tell us that the animals known to have lived in Egypt at the time of the Ancient Empire were all African, that is, local in origin.

Thus the archæological, philological, and biological evidence adduced in support of a foreign derivation of the Egyptians or their culture becomes null and void, when submitted to critical examination.

But if the search for suggestions of a foreign extraction leads to negative results, there is a large mass of evidence of the most positive kind to prove that Egyptian culture was a plant of local growth on the banks of the Nile. The forces of a Nilotic environment determined the shape this growth assumed, and brought it to full maturity and fruitfulness, not only without any assistance from without, but in spite of alien interference.

For it will be shown, in the course of my argument, that the remains of the people themselves reveal clear proofs of a not inconsiderable alien admixture. At the same time the graves from which the bones that afford this evidence were obtained reveal a gradual and apparently undisturbed development of the distinctive Egyptian culture. Its growth was too vigorous and sturdy to be warped or deflected by even a considerable

foreign element in the people who were instrumental in cultivating it.

These facts, the consideration of which will be my main theme in this book, serve to throw into relief the contrast between the nature of the evidence that the archæologist and the anatomist respectively have to consider in dealing with the problems of history.

There may be profound changes in language, religion, customs, and crafts, with little or no alteration in the racial characteristics of a population. Thirteen centuries ago Egypt adopted the Arabic language and religion without submitting to any appreciable change in the physical characters of her people. A vast number of the immediate descendants of Neolithic Europeans adopted the alien practice of cremation, and all the new habits of the importers of the Bronze Age culture, without losing their racial purity. In a preceding chapter I have referred to the fact that the Æneolithic population of Southern Italy and Sicily suddenly changed their burial customs and learned new crafts without any alteration of their racial features.

On the other hand, custom and tradition may become so deeply rooted in a country that no amount of alien immigration can weaken the force of their hold upon the people.

The vast numbers of foreigners who settle annually in England or America do not deflect

the stream of development in these countries, but become swept along with it, and ultimately become a part of it. In the course of this discussion we shall see that of the Asiatics who played so prominent a part in history at the end of the Stone Age, one band entered Europe and impressed their own practices upon her population, while the other, which filtered into Egypt, had to do as the Egyptians did.

Archæology and Anatomy, therefore, may tell apparently contradictory stories, but the history of a country cannot be read truly unless the evidence of both is given due consideration.

What then, it will be asked, has been done to read the story written in the bones of the Ancient Egyptians?

In a previous chapter I have said that it is now exactly a century since Blumenbach began the serious study of the physical characteristics of the Ancient Egyptians. Since then a considerable number of scholars have contributed to the discussion of the significance of the anatomical evidence—in America, Nott, Gliddon, and Meigs might be mentioned as pioneers; in France, Perrier, Pruner, Broca, Quatrefages, Hamy, Fouquet, Zabarowski, Chantre, Lortet, and Verneau have made contributions of varying importance; in German-speaking countries, Carus, Czermak, Virchow, Hartmann, Emile Schmidt, Stahr, and Oetteking may be mentioned; in England,

Barnard Davis, Huxley, Owen, Petrie, Garson, Randall-MacIver, Thomson, Macalister, Karl Pearson and his school of biometricians, Myers, and Keith represent some of the outstanding names of those who have written about the craniology of the Egyptians; and last, but by no means least, Italy has added the important and highly suggestive writings of Sergi, Biasutti, and Giuffrida-Ruggeri.

From this list, which by no means exhausts the enumeration of those who have studied the somatological aspect of the Egyptian question, it will be apparent that many of the most competent anatomists and anthropologists of the last hundred years have investigated the problem of the origin and affinities of the Egyptian people. In a previous chapter I have explained the reasons why research in this field has been so sterile hitherto. The material that alone could yield unequivocal evidence on all the conflicting issues in the racial problem has only been obtained during the twentieth century; and it was not until the detailed investigation of the human remains found in Nubia during the last four years was undertaken that the full significance of the Egyptian remains began to emerge with any clearness.

Further information upon the issues raised in this chapter will be found farther on in this book, and also in Volume II of the Report for 1907–8 of the Archæological Survey of Nubia.

A bibliography and a critical summary of the somatological

literature will be found in Dr. Bruno Oetteking's *Kraniologische Studien an Altägyptern*, 1909, the examination of which will convince the reader that I have not exaggerated the sterility of such investigations in the past.

For the discussion of other matters referred to in the above pages see the works of Dr. Reisner (*op. cit. supra*) and Professor Eduard Meyer's *Geschichte des Altertums*, 2te Auflage, 1ster Bd., 2te Hälfte, 1909.

CHAPTER IV

THE PROTO-EGYPTIANS

THE student of Egyptian anthropology can add yet one more to the long series of favourable circumstances already enumerated that make for a completeness and precision in his investigations, to which workers in other less favoured fields cannot attain. The hot, dry sands of Egypt have preserved through a span of more than sixty centuries the remains of countless multitudes of the earliest people known to have dwelt in the Nile Valley ; and not the mere bones only, but also the skin and hair, the muscles and organs of the body ; and even such delicate tissues as the nerves and brain, and, most marvellous of all, the lens of the eye, are available for examination to-day. Thus we are able to form a very precise idea of the structure of the body of the Proto-Egyptian.

From the stomachs and intestines of these prehistoric people I was able to recover large quantities of food materials, in fact, the last meals eaten before death, which Dr. Fritz Netolitzky, of Czernowitz, kindly undertook to examine. After

years of most laborious and highly skilled investigation he has been able to discover not only the precise nature of the prehistoric diet, but also something of the mode of preparation of the food for consumption.

Almost every sample contained husks of barley, and in about 10 per cent of the specimens husks of millet could be identified with certainty. The millet that was eaten by the earliest Predynastic Egyptians was neither *Panicum miliaceum* nor *Setaria italica*, but a species that is no longer cultivated, *Panicum colonum* (Linn.).

The finding of millet is especially interesting, because, so Dr. Netolitzky informs me, Buschan and Hoops have denied that it was used in Egypt. The species found in these bodies is most nearly related to *Panicum frumentaceum*, which is now cultivated only in the East Indies, and is possibly a cultivated form of *P. colonum*, the range of distribution of which is from North Africa to Southern Asia.

Root-tubers of *Cyperus esculentes* were found both in the intestinal contents and in pots placed in the graves alongside the bodies. These tubers were of very small size, which Dr. Netolitzky regards as evidence of either the utilization of the wild plant or the beginning of its cultivation. Remains of other plants that had been employed either as food or drugs were also found.

Amongst the alimentary material obtained from

the bodies of a people who made the first metal fish-hooks, it is not surprising that Dr. Netolitzky found abundant remains of fish. The fact that fish-scales and bones were frequently swallowed enabled him to identify the species used for food as *Tilapia nilotica.*

Fragments of mammalian bone found amongst the contents of the stomach confirm this evidence that the prehistoric Egyptians were not vegetarians. Moreover, we know that these people had domesticated sheep, goats, and cattle, and they delighted in depicting the chase and the trapping of gazelles and various antelopes.

The occasional presence of the remains of mice in the alimentary canals of children, under circumstances which prove that the small rodent had been eaten after being skinned, is a discovery of very great interest, for Dr. Netolitzky informs me that the body of a mouse was the last resort of medical practitioners in the East several millennia later as a remedy for children *in extremis.*

If we want to add to such sources of information and complete the picture of the early Egyptian and appreciate his mode of thought, he can be found re-incarnated in his modern descendants with surprisingly little change, either in physical characteristics or mode of life, to show for the passage of 6000 years. For in many villages, especially in the Thebaid, that are still untouched

by the disturbing influences of the tourist or the man of commerce, the visitor may find to-day, thinly disguised by a slight veneer of Mohammedanism or Christianity, as the case may be, real representatives of the Proto-Egyptians, living in this twentieth century of the Christian era a life not very different from that of their remote ancestors more than twice twenty centuries before that era began.

The geographical conditions have helped to shield Upper Egypt from the fate that has befallen most other countries, of being overrun at some time or other by sudden and overwhelming waves of invaders, displacing or mingling with the population, and disturbing the habits of the country.

The Thebaid is not only protected on each side, east and west, by the insulating desert (see map on page 89), but also shielded from the full force of foreign aggression by the long stretches of narrow territory north and south of it, which must be traversed before the invader can reach it. Thus any wave of conquering invaders of Egypt, however powerful, and from whatever direction it may come, will be reduced to the merest ripple by the time it attains Upper Egypt, which has thus been spared the effects of any really devastating storms.

Although alien elements from north and south have been coming into Upper Egypt for fifty centuries, it has been a process of percolation, and not

an overwhelming rush ; the population has been able to assimilate the alien minority and retain its own distinctive features and customs with only slight change ; and however large a proportion of the population has taken on hybrid traits, resulting from Negro, Arab, or Armenoid admixture, there still remain in the Thebaid large numbers of its people who present features and bodily conformation precisely similar to those of their remote ancestors, the Proto-Egyptians.

It was my good fortune to have had the opportunity, in my capacity as Professor of Anatomy in the Cairo School of Medicine, of studying the structure of these modern people at the same time as I was engaged in dissecting their Predynastic ancestors, and it was almost a daily experience during those nine years to find features that served to distinguish modern Egyptians from other peoples repeated in the Proto-Egyptian remains and vice versa.

Our information concerning these earliest inhabitants of the Nile Valley has been acquired from the study of the contents of many thousands of their graves, found in cemeteries scattered in every part of Egypt and Nubia so far examined. Such graves have been known certainly for more than two centuries, for Thomas Greenhill, writing in the year 1705, refers to them : but their systematic examination was not begun until 1894, and it was not until the dawn of the present

century that the archæological evidence relating to them was put into order and became sufficiently accurate to justify any reliable inferences being made from the human remains found in them.

When it was definitely established that the age of these graves was anterior to that of the First Dynasty they were called "Predynastic" or "Prehistoric."

Among these Predynastic graves it was obvious that some were immediately antecedent to the First Dynasty, and hence were labelled "Late Predynastic," whereas others, more primitive and distinctly older than the rest, were called "Early Predynastic." It is convenient to distinguish a "Middle Predynastic" group intermediate in age between these two extremes: it merges without any well-defined boundaries into the Early and Late periods. The people whose remains were found in these Predynastic graves I shall call "Proto-Egyptians," a term which I believe was coined by Sir Arthur Evans.

My knowledge of the physical characteristics of the Predynastic people was acquired mainly from the study of the remains found by the Hearst Expedition of the University of California, under Dr. Reisner's direction, at Naga-ed-dêr (see map on page 89), about one hundred miles north of Thebes in Upper Egypt. This cemetery was excavated by Mr. Albert M. Lythgoe. I have also examined material found in the same neigh-

bourhood by Dr. Randall-MacIver at El Amrah, near Abydos : and a large series of skeletons found in the course of the Archæological Survey of Nubia.

Dr. Reisner's report upon the latter series has supplied most of the archæological information given in this chapter.

The Early Predynastic graves consist of shallow pits of a broad oval or rectangular form, scraped in the gravel or fine yellow-grey alluvium, immediately beyond the area of cultivation. They vary in length from, roughly, about $2\frac{3}{4}$ to 7 feet, and in breadth from 2 to 5 feet, and the original depth was anything between $2\frac{1}{2}$ and 4 feet. The direction of the long axis of the graves was not very constant in the earliest period, but became more regular in Late Predynastic times, being parallel to the river, as a rule, throughout the whole prehistoric period.

The body was buried lying usually upon the left side, with the arms and legs loosely flexed, the hands being between the knees and the face. The head was usually directed toward the south, or what these primitive people considered south ; but, as they took the river for their guide, and made their graves parallel to its course, it happened that during the various meanderings of the river the " local south " might be at any point of the compass. The grave was usually lined with matting, to prevent the body from coming into contact with the soil. Matting was also placed

upon the body, which, in addition, was often wrapped loosely in goat skins or linen, for even at this remote period in the world's history the Proto-Egyptians were skilled in weaving flaxen cloth of considerable fineness.

With the dead were buried many objects which the deceased had treasured in this life or his friends believed he might need in a future existence: pottery, vessels of stone, slate palettes, ivory figures, beads, occasionally objects made of gold and copper, and knives and weapons made of flint and other stones.

Many excavators imagined that they had discovered evidence in these Predynastic graves of strangely barbarous customs, such as cutting up and otherwise mutilating the dead body or even signs of cannibalistic practices. But it is now known that the disturbed condition in which many Proto-Egyptian graves were found is evidence, not of ghoulish burial customs, but of the handiwork of the prehistoric grave-robber, and in some instances of the destructive action of small necrophilous beetles.

There is ample evidence to prove that the Egyptians held the bodies of their dead in great respect, even though the tomb-robber in all ages and the unskilful embalmer in Ptolemaic times often overcame their scruples against the desecration of the corpse for the sake of gain or to hide the evidence of their unskilfulness respectively.

Like his successors in the Nile Valley at every epoch the Proto-Egyptian was much addicted to fencing with sticks, like the modern *naboot;* and the frequency of fractures of the forearms indicates that this exercise was not always a mere amusement. The high proportion of women who had had their arms broken in this way, while fending a blow from a stick, seems to suggest that the men had definite ideas concerning the maintenance of discipline amongst their womenkind, and were not restrained by any feeling of chivalry from exerting their authority.

At the same time women received like treatment to the men in burial: their bodies were interred in the same cemeteries, and received just as much care as those of the men.

The Proto-Egyptian was a man of small stature, his mean height, estimated at a little under 5 feet 5 inches in the flesh for men, and almost 5 feet in the case of women, being just about the average for mankind in general, whereas the modern Egyptian *fellah* averages about 5 feet 6 inches. He was of very slender build, for his bones are singularly slight and free from pronounced roughnesses and projecting bosses that indicate great muscular development. In fact, there is a suggestion of effeminate grace and frailty about his bones, which is lacking in the more rugged outlines of the skeletons of his more virile successors. Nevertheless, his limb-bones display those char-

acteristics commonly found in the Proto-Egyptian's European contemporaries (who were still in the Neolithic Age), which are commonly supposed to indicate great muscular strength : I refer to the peculiar lateral flattening of the tibia (platycnemia) and *pilastre* of the femur, as well as flattening of the upper end of its shaft, platymeria. It is probable, however, that the life of constant activity led by this bootless generation of primitive mankind may be a sufficient explanation of these and other features of the limbs which are common to the Proto-Egyptians, the Neolithic inhabitants of Europe, and many uncivilized people of the present day. A special interest attaches to these peculiarities of human structure in Egypt : in a large part of the modern population, in whose veins there flows the blood of their remote prehistoric forerunners in the same locality, and who pursue similar modes of life, these structural traits usually supposed to be distinctive of prehistoric times also persist with remarkable frequency.

It is of some interest to note that the atrophy and fusion of the bones of the small toe, often ascribed to the wearing of boots in modern times, seem to have been as common in this bootless generation of mankind sixty centuries ago as it is now.

The hair of the Proto-Egyptian was precisely similar to that of the brunet South European or Iberian people of the present day. It was a very

dark brown or black colour, wavy or almost straight, and sometimes curly ; but it presented no resemblance whatever to the so-called " woolly " appearance and peppercorn-like arrangement of the Negro's hair.

In the majority of the bodies examined the hair had been allowed to grow fairly long in both sexes ; but the occasional discovery of small balls of cut hair, placed beside the body in the grave, and the finding of men with short hair, suggest that the barber's occupation may have been inaugurated even in these remote times.

As a rule the facial hair in the men was allowed to remain : but when we recall that almost from the commencement of the Dynastic period a clean-shaven face became the universal fashion throughout Egypt, it is not altogether surprising to find, even in this Early Predynastic cemetery at Naga-ed-dêr, an occasional individual with a shaven face.

It is fortunate for us, however, that such cases are rare, for the mode of arrangement and the relative abundance, or the reverse, of the facial hair afford evidence of great value in appreciations of racial affinities.

Like all his kinsmen of the Mediterranean group of peoples, the Proto-Egyptian, when free from alien admixture, had a very scanty endowment of beard and almost no moustache. On neither lip were there ever more than a few sparsely scattered

FIGURE 1.—Profile view of an Early Predynastic skull from Naga-ed-dêr (Hearst Expedition). Beard and soft parts drawn from other specimens from the same site.

FIGURE 2.—A Proto-Egyptian as represented in a portrait statuette by a contemporary artist (*circa* 3400 B.C.). From Hierakonpolis, after Quibell.

hairs, and in most cases also the cheeks were equally scantily equipped. But there was always a short tuft of beard under the chin, and occasionally this area of thickly-implanted hair spread laterally from the chin-tuft along the margins of the jaw and up in front of the ears. Thus the distribution of the facial hair found in the actual bodies closely resembles that represented by the Proto-Egyptian artists in the ivory statuettes from Naqada and Hierakonpolis and upon the well-known carved slates (see next chapter). Several writers have supposed that these archaic statuettes were intended to represent men with long pointed beards: but comparison with the actual desiccated heads of the Proto-Egyptians themselves shows clearly that the long pointed chin, so commonly found in these people, will give the same appearance when prolonged by even a small apical tuft of hair, such as is found actually adorning it in the Naga-ed-dêr bodies.

At the same time the fact that the facial hair was chiefly concentrated in the form of a chin-tuft explains the convention adopted in Dynastic times of representing the Egyptian with a chin-beard only, often of exaggerated dimensions. For, as Ripley says in speaking of the fashions of shaving among the Basques, "all this fits in perfectly with much of the evidence brought forward by Westermarck, in his *History of Human Marriage*, serving to show that the fashions in adornment

which prevail among various peoples are largely determined by the characteristics they naturally possess " (*op. cit.*, p. 203).

There is a considerable mass of evidence to show that there was a very close resemblance between the Proto-Egyptians and the Arabs, before either became intermingled with Armenoid racial elements. The difference in the mode of representing their facial hair in all except the most archaic monuments was due, in my opinion, mainly to the fact that the Egyptian had adopted the habit of shaving, whereas the nomadic Arab had not done so, and thus was represented in much the same way as the Archaic Egyptian was in the habit of portraying himself, i.e. with a small beard reaching from the chin along the jaws in front of the ears. He was shown either without a moustache or with only a very sparse labial adornment.

FIGURE 3.

FIGURE 4.

Ancient Egyptian representations of Arabs (*circa* 2000 B.C and 1500 B.C. respectively).

In a later chapter I shall return to the discussion of this question of fashion in beards, because it throws a very suggestive light upon the racial problems of Western Asia in its relation to Egypt.

The Proto-Egyptians presented a marked contrast to the Armenoid people of Western Asia, not only in their relatively scanty facial hair, but also in the glabrous character of their bodies generally. The body hair was very poorly developed in both sexes.

The desiccated bodies examined at Naga-ed-dêr supplied me with decisive evidence that, even amongst the earliest Predynastic people whose remains have been preserved for examination, it was already customary to circumcise the men. There is reason to suppose that the operation was performed at the age of puberty, as an initiation to manhood. All the evidence afforded by the scenes upon the inscribed slate palettes, and in the tomb of Ankh-ma-Hor at Saqqara, where the operation is represented (see Capart, *Une Rue de Tombeaux*, 1907, Pl. LXVI), supports the evidence supplied by the examination of the bodies, which are more than a millennium older than these pictures graven 2600 years B.C.

There is nothing to indicate or even to suggest that any operation of a similar nature was practised upon girls.

Although the appearance of certain painted dolls

found in archaic graves has led certain writers to assume that tattooing was customary in Predynastic times in Egypt, no positive evidence of this or any other form of mutilation of the skin has ever been revealed by the direct examination of the bodies of the Proto-Egyptians.

Nevertheless a fact of some significance has recently come to light. During last winter's excavations in the course of the Archæological Survey of Nubia, Mr. Firth found a number of bodies of Nubians of the time of the Middle Empire (*circa* 2000 B.C.) with definite tattooing; and the patterns pricked upon the skin of these desiccated bodies were identical with those painted on the dolls buried with them.

No evidence has yet come to light to suggest that the Egyptians pierced their ears for the insertion of rings or other ornaments earlier than the time of the New Empire (*circa* 1600 B.C.).

There is, of course, no direct evidence as to the colour of the skin and eyes of the Proto-Egyptians: but there can be no doubt whatever that their dark hair was associated with dark eyes and a bronzed complexion. In support of this, there is not only the evidence that their immediate successors and undoubted descendants were accustomed to represent themselves in wall-pictures and statues with black eyes and ruddy-brown skin; but also all of the living populations of Africa, Asia, and Europe most nearly related to the Egyptians,

both by geographical propinquity as well as by racial affinity, have brown skins and irises of a black or dark brown colour. As the living populations of North-Eastern Africa, which most nearly resemble the Proto-Egyptians in structure, have a coppery-brown skin-colour, we must look upon the old Egyptian custom of representing men of their nationality with red skin as being something more than a mere convention.

The orderly arrangements for inhumation and the burial with the dead of numerous valuable and useful objects, as well as food, point to a belief in a future life. I have suggested ("The History of Mummification in Egypt," Proc. Roy. Phil. Soc. of Glasgow, 1910) that it must be something more than a mere coincidence to find, in a land where the bodies of the dead were so often preserved in an incorruptible form by the forces of Nature, that it should have become a cardinal tenet of the religious beliefs of the people to look upon such preservation as a condition essential for the attainment of immortality. And there is evidence from other sources to show that other natural circumstances incidental to their life in the Nile Valley and the communication which it afforded with the heart of Africa helped to shape the customs and beliefs of the Egyptian people.

Although we can learn a great deal about the appearance and mode of life of the Proto-Egyptians

from the study of the soft tissues preserved in their graves, the study of their bones assumes a greater importance, because this enables us to compare them with the remains of other populations, both in Egypt and elsewhere, which consist of nothing else than the mere skeletons.

At the outset of my remarks on the story the bones have to reveal I should like to emphasize a statement made by Professor Giuseppe Sergi in his remarkable book on *The Mediterranean Race*, to which I have already referred. So striking is the family likeness between the Early Neolithic peoples of the British Isles and the Mediterranean and the bulk of the population, both ancient and modern, of Egypt and East Africa, that a description of the bones of an Early Briton of that remote epoch might apply in all essential details to an inhabitant of Somaliland.

Over the whole of this wide domain the people were long-headed brunets of small stature, glabrous, and with scanty facial hair, except for a chin-tuft ; with bodies of slender habit and a tendency to platycnemia, and *pilastre* and platymeria of the femur, and perforation of the coronoid fossa of the humerus. The skull is distinguished in all of these peoples by being long, narrow, ill-filled (Cleland), and a tendency to assume a pentagonoid (coffin-shaped) or ovoid form, when viewed from above ; the eyebrow-ridges are poorly developed

or absent; the forehead is narrow, vertical, smooth, and often slightly bulging; and the occiput is bulged out into a marked prominence of the back of the head. The forms of the orbits are either horizontally-placed ellipses or small circles, and their margins are thin. The cheeks are narrow, and their bony supports (zygomatic arches) flattened laterally. The nose is only moderately developed: it is small, and relatively broad and flattened at its bridge. The chin is pointed and the jaw very feebly built. The face as a whole is short and narrow: it is ovoid in form and straight, although there is often some slight projection of the jaws in the African members of this widespread group of affiliated peoples. The teeth are of moderate size or small. The whole skeleton is of slight and mild build, and has a suggestion of effeminacy about it.

Even if the burial customs and the ceramic and other remains did not supply us with conclusive evidence of a confirmatory nature, the bones alone would provide sufficient data to enable us to assert with the utmost confidence that the populations which occupied North-East Africa, the whole Mediterranean littoral, the Iberian Peninsula, Western France, and the British Isles before the coming of copper were linked together by the closest bonds of affinity. They were certainly the offspring of one mother, and if we must decide whether the original home of this

maternal population was north or south of the Mediterranean there are considerations of a biological, no less than of an archæological nature, derived from the Neolithic graves of the Mediterranean islands and the northern littoral, which incline the balance strongly towards the African shore as the place where the Mediterranean Race acquired its distinctive characters, physical, mental, and moral, at the same time that it took on a brunet complexion.

Whether the tall, blond, long-headed North European (Teutonic or Nordic) Race is linked to the small, dark, long-headed South European Race does not concern us in this discussion, for if all the centuries that separate us from the Early Neolithic Age in Britain have not availed to change its small dark brunets into tall blonds, the cleavage between these two dolichocephalic Races must have occurred long before the period that comes within the scope of this work. However, I would follow Sergi so far as to admit as an axiom that a much more intimate relationship, both physically and culturally, links the short brunet of South Europe to the tall blond of North Europe than that more remote bond of the common ancestry of all mankind, which ultimately links these two Races to the utterly alien Armenoid, broad-headed, long-bearded people, whose home I believe was certainly in Asia, far removed from the habitat of the dolichocephals of Europe, before

they separated into Southern (probably African) and Northern branches.

I have referred to these general questions for the purpose of throwing into relief the racial distribution on the east of Africa. There is a very suggestive mass of evidence, admirably summarized by Professor William Z. Ripley in his *Races of Europe*, which goes far to prove that originally a short, brunet, long-headed population occupied the whole southern littoral of Asia from the Red Sea as far as India (see map on page 73). The study of the physical characters of these people, whether we call them Arabs, Southern Persians, or any other national name, reveals a whole series of other features curiously similar to those exhibited by the Proto-Egyptians and their relatives of the Mediterranean group.

There is certainly a closer bond of affinity between these dwellers on the shores of the Indian Ocean and the Mediterranean respectively than that linking the latter to the Nordic Race dwelling on the shores of the Baltic.

It is clear that we cannot call this group "Hamitic," because it includes all the primitive Semites; nor can we call it "Mediterranean," for its domain has been extended far beyond the limits of the Middle Sea, and also its distribution is not that assigned by Sergi to his Mediterranean Race.

For the sake of convenience I shall refer to

this widespread group of peoples as the "Brown Race," in reference to the distinctive colour of their skin.

For further information regarding the subjects discussed in this chapter the reader is referred to the works of Reisner, Sergi, and Ripley cited in the first three chapters.

CHAPTER V

EGYPT'S RELATIONS WITH THE SOUTH

THERE is a class of scholars who are constantly obsessed with the idea that the Egyptians must have marched into the Nile Valley from some foreign land at a time within or immediately before the historic period, in spite of the certainty that such a desirable spot must have been occupied by primitive man from the time of his first dispersal throughout the wide world, which occurred many tens of thousands of years before the times with which we are concerned in this book.

It is, perhaps, not without interest to recall in this connection that Egypt, in the even more remotely distant past, was the habitat of the first Simian family that definitely branched off from the other members of its Order and became Anthropoid; for in the Miocene fossil *Propliopithecus Haeckelii*, recently obtained in the Egyptian Fayum and described by Schlosser, we have the earliest representative of the phylum common to Man and the Anthropoid Apes. Ever since that remote date Africa has remained the home of the most distinctively Man-like Apes; and to-day

Man's nearest relatives, the Gorilla and the Chimpanzee, inhabit that continent in a territory which they share with perhaps the most Ape-like race of mankind, the Negro. There is still a good deal to be said for Darwin's view that Africa may have been the original home of mankind.

But this question does not concern us here, for tens of thousands of years before the events occurred which we are discussing in this book Man was in occupation of the whole earth, and had wandered hither and thither times without number. It is surely ludicrous to search the coast of Libya on the west, or the shores of Palestine and Arabia on the east, for the footprints of the Egyptians seeking their land of promise.

In a previous chapter I have referred to the absence of all evidence for such a racial movement, which on a priori grounds is quite inconceivable.

But when we look towards the south a problem of a nature quite different from the relations with east and west presents itself. Egypt forms only a small fragment of the long bridge of fertile land that spans the vast North African desert and links the shores of the Mediterranean with the heart of Africa and the home of the Negro (see map on page 73). Moreover, in Predynastic times the extent of habitable land in Egypt was only a fraction of what it is now, for a large part of it

consisted of marshes, which had to be drained before the whole plain could be occupied.

There is every reason for believing that the whole of the Nile Valley was occupied during the fourth millennium B.C. by a population which was necessarily scattered, because the habitable land was so limited in extent. The people living in the milder and more fertile land north of the First Cataract advanced more rapidly in the paths of civilization, not only by virtue of these naturally advantageous circumstances, but possibly also by reason of their contiguity to the great midland sea, which enabled them to receive impressions and exchange ideas with other peoples, and in this intercourse to obtain the stimulus for greater achievements.

Whatever the reason may have been, the historical fact is well attested that by the commencement of the fourth millennium B.C. the people of Egypt had raised themselves to a higher plane of culture than their neighbours. One of the first uses to which they put their newly-acquired knowledge and skill was the draining of the marshes and the consequent extension of their habitable and cultivable territory.

At about the same time that this was happening the people of Upper Egypt were beginning to realize the strength of the weapons the discovery of copper-casting had placed in their hands; and this knowledge bred the courage which enabled

them to vanquish the people of Lower Egypt and unite the White and the Red Crowns of the two kingdoms under one sovereignty.

The use of metals also gave a powerful stimulus to the development of art and architecture, for it gave birth to the crafts of the stonemason and the carpenter, of the sculptor and the carver of hieroglyphics. It was the dawn of a new era of art and learning.

All of these historical events drew into Egypt a host of people from beyond her gates. The draining of her marshes in Lower Egypt especially attracted the people from the relatively sterile south to the milder and more fertile territories thus rescued ; and the political events to which I have referred, with all the social and economic results that followed in their train, were additional magnets, which drew into Egypt immigrants from all the neighbouring lands, and especially from the more southern parts of the Nile Valley.

Before I discuss the evidence in support of this contention, let me refer to the later waves of this great movement from south to north.

The recently acquired knowledge of the early ethnography of Nubia, which has been rescued in the course of the Archæological Survey of that country, has familiarized us with an epoch that lasted until about 2800 B.C., when Egypt and Lower Nubia were occupied by one uniform population in the same stage of culture. But

from the time of the Third Egyptian Dynasty onwards a great contrast becomes apparent in the development of the two countries, respectively north and south of the First Cataract.

When this information first came to light (see First Bulletin of the Archæological Survey of Nubia, 1908) it was interpreted as meaning that while Egypt advanced with rapid strides towards the attainment of her greatest artistic and cultural triumphs, Nubia not only failed to keep pace with her, but actually fell away from the standard of knowledge and skill she had possessed before the times of the Pyramid-builders. This was further explained by the hypothesis that in the competition for the acquirement of the fat lands of Egypt only the weaker brethren were left in Nubia ; and these feeble folk were unable to resist the immigration of Negroes, who came up from the south, intermingled with them, and dragged down their cultural attainments to a lower plane.

A more detailed study of the human remains obtained from graves made in Lower Nubia at the time of the Ancient Empire in Egypt has convinced me that a slightly different explanation must be found to account for the known facts.

In the first place practically no *pure* Negroes were found amongst the remains of these people buried in Nubia during the Ancient Empire, although the population as a whole bears ample evidence of Negro admixture. Presumably this

means that the process of mixing did not take place in Nubia, but further south ; and that it was the mongrel population and not the Negro element only that came north into Nubia. The difference in culture was not the result of a falling away from a higher standard, but was due in all probability to the fact that the less favourably placed kinsmen of the Proto-Egyptians had not kept pace with them in their acquirement of a higher civilization.

Less than a millennium later another wave of kinsmen of the Proto-Egyptians moved north into Nubia. They were more strongly Negroid than their predecessors, and brought with them a culture more definitely specialized and differentiated from that of Egypt, and more obviously tainted with African influence. These were the people called in our Nubian Reports "Middle Nubians," in reference to the fact that the period of their most characteristic development in Nubia was synchronous with that of the Middle Empire in Egypt (*circa* 2000 B.C.).

Both in respect of their physical characteristics as well as of the products of their arts and crafts they show clear evidence of a definite specialization, quite apart from the effects of intermingling with Negroes. Nevertheless their physical traits no less than their burial customs and ceramic arts clearly demonstrate their derivation from the same source as the Proto-Egyptians. They were

certainly kindred peoples, sprung originally from the same parent race.

Thus the new knowledge recently extracted from the graveyards of Nubia has made it abundantly clear that during the fourth millennium B.C. there must have been a series of kindred peoples, scattered along the Nile like beads upon a string, extending far away to the south of Egypt, even unto the land of the Negro. As Egypt's power became consolidated and she entered upon her career of abounding prosperity these southern communities moved northward one by one, and so came within the ken of the student working on the southern frontier of Egypt.

At all times there has been a large group of kinsmen of these settled inhabitants of the Nile Valley who have led the life of roving nomads in the eastern desert. These Beja people are represented at the present day by the Ababda, Bisharin, and Hadendowas. In a sense they have served as links between the Arabs dwelling on the shores of the Red Sea and the people of Egypt and Nubia.

In the account of the northerly trend of the population of the Nile Valley, from the Soudan towards Egypt, which I have been discussing in the previous paragraphs, only the period from roughly 2800 B.C. to 1500 B.C. has been under consideration. But there is a large series of scraps of evidence which, considered collectively, almost

amount to a demonstration that at a still earlier period, in Predynastic times, there was a similar northern movement of the Nilotic population, which was of the nature of a concentration of this people in Egypt.

There is abundant evidence to prove that the distinctive culture of Egypt was indigenous in the Nile Valley. The animals and plants used for food, depicted upon the pottery, or worshipped, were all Nilotic : the customs and beliefs of the people were such as would be developed amidst the special and quite peculiar natural conditions that obtain upon the banks of the Nile, and not elsewhere : in fact, every aspect of the life and activities of the earliest inhabitants of Egypt, with whose remains we are acquainted, bears ample testimony to the fact that, for long ages before the earliest Predynastic period of which any tangible remains have come down to us, the ancestors of the Egyptians must have been living in some part of the Nile Valley.

The abundance of ivory in Predynastic times and the occasional representation of the elephant show that either the domain of the Proto-Egyptians reached as far as the habitat of the elephant or they (the people of Egypt) had free and intimate relations with the inhabitants of the southern territory. The frequency with which ostriches were represented upon pottery, and the common occurrence of ostrich eggs in Pre-

dynastic graves, point to a similar alternative. I do not suppose any zoologist would seriously argue that the habitat of the elephant or the ostrich extended any further north seven thousand years ago than they do now. At any rate there are no osseous remains, such as there are of other creatures more recently extinct in Egypt and Nubia, to indicate that their domain did extend north. Nor is it likely that the Proto-Egyptians, who deified almost every mammal, reptile, and bird known to have lived in Egypt or Nubia in their time, would have failed to venerate, and make idols in representation of, two such impressive and stately vertebrates as the elephant and the ostrich, if they had dwelt amidst these creatures. In a like manner they were familiar with the appearance of the giraffe, yet it found no place in their pantheon.

It is obvious that the Predynastic Egyptians must have developed their distinctive culture and beliefs in some region north of the junction of the White and Blue Niles, where the elephant, the giraffe, and the ostrich did not penetrate: but that they had free and intimate relations with the inhabitants of the elephant-country around the White Nile. Moreover, as the element of Negro that occurs in the remains of the Proto-Egyptian population is so minute, it is obvious that they did not deal directly with the Black man in obtaining their ivory and their knowledge of these strange

creatures. Presumably they obtained such commodities through the intermediation of their kinsmen in the south, and that such immigrant dealers in Egypt depicted the elephants, the ostriches, and the giraffes with which the contents of Predynastic graves have familiarized us.

In the Sixth Bulletin of the Archæological Survey of Nubia Mr. Firth has expressed the opinion that the Middle Nubians "represent a later wave (greatly modified by Negro influences) of the same race that founded the Predynastic culture in Upper Egypt." He adds the further statement that "the similarity of the incised wares of the Predynastic period to those of the C-group [Middle Nubians] probably means the application to pottery of a type of decoration which had its origin in patterns scratched or carved on gourds and wooden vessels." "The Predynastic incised ware is by no means common, and is confined to the earliest graves of that period, where it may represent a survival of the art of the more distinctly *African* section of the Predynastic community."

Within recent years many scholars have advocated the view that there is a large element of Negro in the composition of the Proto-Egyptian population, and Ripley, apparently as the result of a misunderstanding of Sergi's views, boldly states that the Egyptian and the whole Mediterranean race are descendants of Negroes!

BLACK SEA
CAUCASUS
ASIA MINOR
CASPIAN SEA
TURAN
Kara Kum Desert
PAMIR
DOMAIN OF LONGBEARDS
IRAN
HINDUKUSH
MESOPOTAMIA
EUPHRATES
TIGRIS
SYRIA
BARCA
SYRIAN DESERT
SUMER
SINAI
EGYPT
PERSIAN GULF
HEJAZ
NEJD
INDIA
LIBYAN DESERT
NUBIA
RUBA' EL-KHALÎ
OMAN
ARABIAN SEA
NUBIAN DESERT
RED SEA
YEMEN
ABYSSINIA
HADRAMUT
White Nile
Danakil People
SOMALI PENINSULA
Galla People
EQUATOR

MAP I.

There can be no doubt that in respect of many features the Brown and the Black Races present many points of similarity. Some of these resemblances are no doubt due to the fact that both peoples retain many traits common to them and primitive man; but other points of likeness cannot be explained in this manner. That there is no close affinity between the two races is shown by an analysis and comparison of the intimate structure of the bodies of representative individuals. In the texture of bone, the architecture of the skull, the nature of the asymmetry of the body and the character of the variations—in these and many other respects there is evidence of the profound gap that separates the Negro from the rest of mankind, including the Egyptian.

Nevertheless there are undoubted points of resemblance between the Black and the Brown man, for which I can offer no other explanation, except to suggest the influence of environment. Two primitive but divergently specialized peoples have been submitted for long ages to the influence of a tropical African climate — one in the moist, steamy belt of the Equatorial region, the other, perhaps for a shorter period, in the subtropical coast-lands of Eastern Africa and the Nile Valley—perhaps not including the White Nile : one became the Negro, the other the Brown man.

The present distribution of the so-called Hamitic race, and the facts of history and archæology, lend

support to the view that the Brown Race, the kinsmen of the Proto-Egyptian and the Mediterranean people, has occupied the territory, where representatives of them are still found, throughout the whole time with which we are concerned in this discussion.

The physical characteristics of the present Nubian, Beja, Danakil, Galla, and Somali population, if we leave out of account the alien Negro and Semitic traits, with which they are now so abundantly diluted, are an obvious token of their undoubted kinship with the Proto-Egyptians. When we consider the multitude of these Hamites and the wide extent of their territory, compared with which Egypt is a very small place, it is inconceivable that the Egyptians can be more than merely one small outlying member of this great group of nations (see map on page 73).

That the inhabitants of the African littoral in the vicinity of the Bab el-Mandeb conformed to the same racial type in ancient times is proved by the pictures of the inhabitants of the Land of Punt in Queen Hatshepsut's temple at Dêr-el-Bahri (Thebes). The men of Punt were represented, like the Egyptians themselves, with the chin-tuft type of beard and the conventional brick-red skin colour. They conform to the Proto-Egyptian type as regards their facial and cranial features, and at the same time present a close resemblance to the modern Hamitic population of Somaliland, as

portrayed by Paulitschke and other ethnologists.

In consideration of all these facts it is not without significance that the Ancient Egyptians were accustomed to speak of the Land of Punt as their homeland. The expeditions to that country in the reign of Queen Hatshepsut were by no means novel undertakings: for, more than a thousand years before her time, it is recorded that King Zoser, of the Third Dynasty, equipped an expedition to go to Punt and the Incense Country (Hadramut) on the Arabian coast to get wood and spices.

At an even more remote date, in Protodynastic or perhaps even in Predynastic times, there must have been some kind of intercourse between Egypt and the Somali region, for upon the ceremonial slate palettes that have come down from the dawn of the historic period in the Thebaid there are represented certain mammals and birds, whose habitat is Abyssinia and the adjoining part of Somaliland.

The attempt to interpret the significance of the scenes depicted upon these interesting slate palettes has given rise to considerable discussion, which will be found summarized in the Proceedings of the Society of Biblical Archæology for 1909. I do not propose to enter into this field of conflicting interpretations, except to extract from the scenes certain facts that throw light upon the southern relations of the Proto-Egyptians.

Those who have engaged in the discussions concerning these slates hitherto have been led into error by the imperfections in their knowledge of the contents of Predynastic graves. Not being aware of the fact that it was the universal custom amongst the Proto-Egyptian men of the Thebaid and Lower Nubia to wear a tubular pudendal sheath of leather, suspended around the waist by one or sometimes two bands of rope, Mr. F. Legge, the writer of the article to which I have referred, wrongly assumes that the *karnata*-wearers represented upon the palettes are necessarily foreigners. Other writers have interpreted the wearing of a slight cheek-beard in addition to the chin-tuft as an indication that the wearer is alien, i.e. an Arab ; but from what I have said of the appearance of the unshaven Proto-Egyptian in the last chapter it is clear that such an individual may be, and in most of the scenes undoubtedly is, intended to be an Egyptian.

In most of the scenes represented there can be no doubt whatever that intertribal fights between different groups of allied Proto-Egyptian people are being recorded. And as these encounters took place in Protodynastic times, when the *karnata* of the earlier people was being superseded by the kilt, so well known from the bas-reliefs and statues of the Ancient Empire, it is not surprising to find one group of warriors wearing the kilt and the other the *karnata*. Mr. Legge's supposition that

the wearers of the leather sheath were slaves has no basis in fact, for we know that the *karnata* was the universal "dress" of the men in Pre- and Proto-dynastic times in the Thebaid and continued to be worn in Nubia long after the kilt came into vogue in Egypt. In fact it is worn at the present day by the natives of German East Africa.

The palette which throws the most interesting light upon the subjects discussed in this chapter is that referred to as No. 6 by Mr. Legge. For in the scenes depicted upon it there is shown the defeat of a distinctly Negroid people, with the characteristic Proto-Egyptian beard and *karnata ;* and in association with animals known to occur only in Somaliland and Abyssinia.

Here, then, is fresh evidence in support of the contention that the kinsmen of the Proto-Egyptians were distributed over the whole extent of Egypt, Nubia, and the Blue Nile, and as far as Abyssinia and the vicinity of the Bab el-Mandeb. Moreover, certain facts revealed by the study of the earliest Predynastic graves in Egypt suggest that at about the time those graves were dug there was a concentration in Egypt and Nubia of representatives of the kindred peoples scattered throughout this wide East African domain.

Whether the habit of burying the dead with the head to the south had any reference to this derivation (or partial derivation) from the holy

land of Punt, it is not for a mere anatomist to say. But it is perhaps not without some significance that when, during the Early Dynasties, the centre of Egyptian power moved from Abydos in Upper Egypt to Memphis in the north, not only did the thread of Egypt's communications with the south become attenuated, and her intercourse with Western Asia strengthened in volume and in influence, but the manner of orienting the corpse in the grave changed also, and at the same time it became the usual practice to bury the dead with their heads to the north.

Many of these reasons for suggesting intimate relations between Egypt and the Bab el-Mandeb region in prehistoric times are no doubt trivial when considered individually, but their cumulative value amounts to something more than a mere presumption that the kinsmen of the Proto-Egyptian once formed an unbroken if slender thread stretching up the Nile, along the Atbara River and Blue Nile to Abyssinia and beyond to the Somali Peninsula. With only the narrow strait of the Bab el-Mandeb to separate this domain from Southern Arabia, it is safe to assume that there was intimate intercourse between the peoples upon the African and the Asiatic shores respectively.

For further information upon the problems discussed in this chapter the reader is referred to the already quoted works by

Sergi, Meyer, and Keane, and, in addition, to Sergi's Italian treatise on *Africa*.

The classical works on East African Hamites are Munzinger's *Ostafrikanische Studien*, 1864; Paulitschke's *Ethnographie Nordost-Afrikas, Die matierelle Cultur der Danâkil, Galla, und Somâl*, 1893; and Hartmann's series of memoirs, of which I may mention *Die Nigritier*, *Die Nilländer*, and *Untersuchungen über die Volkerschaften Nord-ost Africas*. These works supply evidence from the southern point of view which is complementary to and corroborative of that from the north, which I have sketched in this chapter.

An interesting but somewhat speculative account of the wider relations of East Africa and Arabia will be found in Barton's *Sketch of Semitic Origins*, New York, 1902; and, of course, Sir Gaston Maspero's *Dawn of Civilization* is a storehouse of information and bibliographical references.

CHAPTER VI

EARLY RELATIONS WITH ARABIA AND SYRIA

IN the last chapter reasons were advanced to suggest that the Proto-Egyptians were linked by the closest bonds of kinship and a common tradition to the population of East Africa as far south as the neighbourhood of the straits of Bab el-Mandeb ; and earlier in this book I have referred to the generally accepted fact that the population of Egypt was also related by equally close ties to the peoples living along the whole extent of the North African littoral. Between the contiguous links of this extensive chain of affiliated groups a constant process of give and take must have been in operation for long ages ; and not an exchange of ideas and merchandise only, but also of flesh and blood.

From a comparison of the various Nilotic members of this series of sister-populations there seems to be definite evidence of a specialization in structure distinctive of each. Thus, if the three groups of people who occupied Nubia in succession between 4000 B.C. and 1500 B.C., which the archæologists distinguish by the letters A, B, and

C respectively, be compared, and the increasing element of Negro in the B- and C-groups be left out of account, a peculiar cast of face, not easy to define, much less to express in figures, seems to characterize the C-group people and enable us to distinguish it from both the B- and A-groups. No doubt if representatives of each member of the extensive series of communities of the Brown Race could be compared it would be found that the varied environments had wrought in each some distinctive traits. The narrow-headed brunet of the British Isles, for example, has become very different in many details of his bodily structure and mental fibre from the East African, however close may be the likeness in the more general characters of cranial and facial forms, general build of body, and other distinctive racial features.

If to the variations, which naturally occur in each community settled in one particular locality, there be added the changes worked by the forces of another environment in representatives of neighbouring communities, who immigrate into that locality, a much wider element of heterogeneity will be the result. For example, if the contention urged in the last chapter be correct, and it is admitted that a series of affiliated peoples was grouped along the Nile from the Mediterranean to Abyssinia and beyond, it may be taken as an axiom that each community—say those of the Delta, of Upper Egypt, of Nubia, of the Abyssinian

Highlands, and of the Somali coast—exposed to widely differing environments, leading varied kinds of lives, and subsisting on a diversity of diets, would become modified in structure and function as the result of these contrasts in their circumstances. If, then, there was a concentration in Egypt of people, drawn from this wide domain, such as I have postulated (in the last chapter) as having actually happened in early prehistoric times, we should have introduced in Egypt a heterogeneity produced by a variety of environments, without having brought into the country any really alien racial element, seeing that all the immigrants were blood relations of the autochthonous people.

In the preceding paragraphs I have wandered into the realms of speculation in the hope of elucidating thereby certain facts concerning the physical traits of the earliest known Predynastic population of Egypt. So far as their physical characteristics are concerned the Predynastic Egyptians are probably the nearest approximation to that anthropological abstraction, a pure race, that we know of. About two per cent of them are definitely Negroid, and perhaps another three or four per cent display features which suggest the influence of Negro admixture, but in so undecided a manner that it would be rash to dogmatize concerning them. Among undoubted Predynastic remains I have never seen a single

individual that I should feel justified in branding as foreign, although there are some that suggest doubts as to their racial purity. Of course, I omit the Negroid cases from this statement. Amongst the so-called "prehistoric" crania unearthed by M. de Morgan in the Thebaid, and also amongst the archaic series found by Professor Flinders Petrie and Mr. Quibell near Naqada and Ballâs, I have found definitely alien (Armenoid) individuals; but we have no evidence to show whether they were Pre- or Proto-dynastic.

But amongst the Predynastic series there are a certain number of crania which, though conforming on the whole to the recognized Proto-Egyptian canons, present some features simulating the average condition of some alien race; and in such cases one is not justified in asserting either that such cases are the result of alien admixture or merely the extremes of the variations occurring within the unmixed population. The possibility of a wider range of variability having been brought about by intermingling within the circle of the affiliated peoples makes the difficulty of coming to a decision upon this matter all the more difficult. In skeletons obtained from graves of a slightly later date we reach firmer ground, for many individual bones display definitely alien characters such as cannot be explained away as being examples of extreme variation of the Egyptian people or the result of some pathological condition.

The Proto-Egyptian as a rule had a comparatively small and relatively broad nose, with a very small nasal spine. Yet it is not uncommon to find individuals with narrow, high-bridged,

FIGURE 5.—Predynastic Egyptian skull from Naga-ed-dêr (Hearst Expedition). Narrow, high-bridged, prominent nose.

prominent noses and large nasal spines. The problem that arises is, are such cases really Proto-Egyptian, or are they, say, Arabic in origin?

The problem of the relationship of the Early Egyptians and the Arabs is one that presents singularly elusive difficulties. In the first place no bodily remains of Arabs at all comparable in age to those of the Predynastic Egyptians have yet been obtained for examination and com-

parison. Moreover, the modern political conditions in Arabia and the attitude of its people are such that practically no systematic excavation has been possible in that great peninsula; but the investigations of a brave and intrepid band of scientific travellers have shown that Southern Arabia has enjoyed a long period of civilization; and no doubt its soil still harbours the remains of the earliest Semites and the records of their achievements.

But the modern Arab, such as those now dwelling in the provinces of Yemen and Hejaz, and the wandering Bedawin who make their way into Egypt, present so close a likeness to the Proto-Egyptian racial type that it would be a matter of some difficulty to discriminate between their osseous remains. Certain distinctive types of face and cranium that are of common occurrence among the Arabs occur only rarely among the Egyptians; but over and above these there is a very large section of modern Arabs who seem to conform precisely to the Proto-Egyptian type. I do not think there can be any room for doubt that the two peoples are closely related; but this makes it all the more difficult to attempt to discriminate between them, or to pretend to estimate the extent of Arabic influence in Egypt.

Arabia presents a relationship to Egypt which differs in many respects from that of any other country. Compared with the enormous Arabian

peninsula Egypt is an altogether insignificant territory; but if we agree to admit that the domain of the kinsmen of the Egyptians forms an elongated thread stretching from the Mediterranean to Somaliland (see map on page 73), the two populations, Hamitic and Semitic, will be seen to occupy parallel strips of land almost 1400 miles in extent. But the Red Sea and the Eastern Desert separate them, and prevent the free intermingling of their populations. At the northern and southern extremities, however, the two territories are brought nearer together. At the northern end, where there is a land connection through Sinai, the eastern wing of the Egyptian Delta stretches out to help bridge the gap between the Nile Valley and Arabia with fertile land; and in the south, just at the place where the domain of the Hamite impinges upon the Red Sea littoral, Arabia reaches out toward the African shore, with only the narrow straits of the Bab el-Mandeb to separate them. It is certain that there has always been a free intercourse between the two peoples in the Sinai Peninsula, and across the Bab el-Mandeb. Moreover, in the area intervening between these northern and southern links between the two domains, both the Arabic and the Beja nomads have roamed the Eastern Desert for long ages, and formed a less intimate link between the two peoples.

In its passage through Upper Egypt the Nile

takes a considerable bend towards the east at a point a short distance north of Thebes (see map on page 89), and opposite the bend a valley, the Wadi Hammamat, leads through the hills to the Red Sea coast at Koseir. From the records inscribed upon the rocks along this route we know that there was some traffic along it in the times of the Fifth Dynasty: but it is such an obvious means of access from the Nile to the sea that we can be sure it must have been a trade route even in Predynastic times, or at any rate a highway where the Arab and the Proto-Egyptian met and intermingled. The widespread occurrence of marine shells, presumably from the shores of the Red Sea, in the Predynastic graves of Upper Egypt and Nubia is positive evidence of the reality of such intercourse.

Among those scholars who still cling to the idea that Egyptian culture was derived from some foreign source it has been customary to confer the special distinction upon the Wadi Hammamat that it was the channel through which this ready-made civilization made its way into Egypt. But how the hypothetical carriers of this culture got to the Red Sea and where they came from have not been explained; nor have the advocates of this theory ever attempted to explain how all traces of its foreign origin were so completely deleted from this civilization as soon as it reached the Nile, or by what means it assumed a garb so

MAP 2.

Note that the names "Memphis," "Lisht," "Medûm," and "Deshasha," printed on the eastern side of the river, refer to the sites marked on the western side.

thoroughly Nilotic in character. Such a pretended explanation explains nothing, and only creates confusion. The Wadi Hammamat no doubt has been an important pathway of communication between Egypt and Arabia in all ages; and it probably witnessed even in Predynastic times a not inconsiderable stream of people going and coming between the two lands. But more than this we are not justified in assuming.

While it can be regarded as certain that some amount of Arabic admixture has been taking place throughout the last sixty centuries, for the reasons set forth in the preceding paragraphs there is no means of estimating its volume or determining the extent of its influence.

There is one fallacy to be carefully guarded against in attempting to interpret archaic portraiture. It is not uncommon to find writers assuming that men represented in Ancient Egyptian paintings and sculpture wearing a short pointed chin-beard together with a scanty cheek-beard, but with little or no moustache, must be Arabs. But I have already pointed out that the Proto-Egyptian was endowed by Nature with a similarly disposed facial adornment, and was accustomed to represent himself wearing the cheek-beard until Protodynastic times, when it became the fashion for Egyptian men to shave. The nomadic Arab probably did not shave at so early a period; and hence he continued to be represented with his

natural beard long after the Egyptian had been portraying himself with a smooth face or with a chin-tuft only.

It is significant that when the Arab did begin to use the razor, he shaved the lips only, or the upper lip alone. This again is true to the custom that prevails among almost all peoples of emphasizing or exaggerating the distinctive traits with which Nature had endowed them. The Arab, having little or no moustache, removed the few hairs that studded his upper lip.

Even when the Arab in Syria intermingled with the Armenoid population, which was distinguished by the luxuriance of its beard and moustache, the old Arabic convention still held sway, and the long-bearded hybrid people still shaved their moustaches, like many old-fashioned Nonconformists in England and Scotland to-day. It is an interesting illustration of the extreme conservatism of the Syrian population in respect of this custom, that in the early Christian cemetery of Armenoid immigrants into Nubia, which was discovered on the island of Hesa, the men were wearing long beards but had shaved their upper lips.

In his excavation of the " Royal Tombs of the First Dynasty " at Abydos, in 1900, Professor Flinders Petrie found in the tomb of King Qa a piece of ivory upon which was engraved an excellent portrait of a typical Armenoid Semite with long beard and shaven lip. The finding of such

an object in Upper Egypt at this early period is a fact of very great interest and importance as evidence of contact with foreigners; not merely with mere Arabs, who may prove to have been kinsmen, but with the big-nosed, full-bearded

FIGURE 6.—An Armenoid captive—First Dynasty. After Flinders Petrie.

Semites who exhibit unmistakably Armenoid traits (see Figure 6).

Thus we have positive evidence that Egypt and Arabia had come into contact by the time of the First Dynasty, not only from the accounts of conflicts between the people of Lower Egypt and the "sand-dwellers" of Sinai, but also in this bas-relief of a typical Semite found in the Thebaid.

And from this time onward there are records,

both literary and pictorial, which go to prove the perpetual feuds between Arabs and Egyptians. In the wall-pictures found by Flinders Petrie in a Fifth Dynasty tomb at Deshasha there is a scene representing the Egyptians smiting the Arabs; and similar encounters were described

FIGURE 7.—A Fifth Dynasty picture of an Egyptian smiting an Arab. After Flinders Petrie.

and depicted times without number in subsequent ages.

It is inconceivable that this intercourse, which began long before the historic period and has continued without intermission ever since, could have failed to lead to considerable racial admixture, even though we are not able to pick out individual bones from those found in Egyptian tombs and proclaim them as the remains of Arabs.

The balance of probability is strongly in favour

of the view that the Arabs and the Proto-Egyptians were sprung from one and the same stock, the two divisions of which, living in the territories separated by the Red Sea, had become definitely specialized in structure, in customs and beliefs, long before the dawn of the period known as Predynastic in Egypt. Moreover, it can be asserted with confidence that, even as recently as the Early Dynastic period, the Hamitic population of East Africa, many of whose elements filtered down the Nile into Egypt during the following two millennia, was in intimate contact with the Semitic population on the other side of the Straits of Bab el-Mandeb.

In this discussion I have not mentioned the linguistic evidence, which, according to many scholars, points to a similar conclusion. This, however, is a matter for philologists to decide. I have attempted to indicate the extreme difficulty of the anthropological question, and have referred to certain scraps of evidence to suggest that the chief reason for the cryptic nature of the problem is the fact that the Arabs and the Egyptians are kindred peoples, sprung from the same parents, which would explain the impossibility of distinguishing the remains of one from those of the other.

But if there is this element of uncertainty in the attempted demonstration of the intermingling of

Egyptians and Arabs, we cannot entertain any doubts in reference to a definitely alien strain that made its appearance in the people of Egypt during the Early Dynastic period, and left its indelible impress in their physical traits for all time. The heterogeneous features appear in a form so pronounced as to justify the positive assertion that the alien element in the mixture was neither Egyptian, nor did it belong to any of the kindred peoples. It was something quite foreign and certainly Asiatic in origin—that variety of Asiatic which von Luschan has called Armenoid.

There are reasons for believing that this sudden appearance of a large infusion of alien traits in the population of Egypt at the beginning of the third millennium B.C. was only one of many manifestations—or, as I hope to be able to prove in the course of the next chapter, one of the by-products of the great fundamental cause—of a widespread ferment among the peoples of Asia and Eastern Europe at this time, which was destined to play a large part in shaping the distinctive civilization of Europe and directing the course that the history of the world has taken.

In his work on the staff of the Pumpelly Expedition in Turkestan, as well as in a series of memoirs which he has published during the last three years, Professor Ellsworth Huntington has attempted to explain this great revolution in the world's history, as well as many other events in

more recent times, as being the result chiefly of climatic changes in the heart of the Asiatic continent (see *The Pulse of Asia* and the recently published work by the same author dealing with Palestine).

No doubt geographical environment plays an immense part in determining the customs of different peoples and in shaping their bodies. Moreover, it may have happened that a change of climate led to the desiccation of large tracts of Turkestan, and drove its people in great measure to seek new pastures for their flocks and new homes for themselves. It may be that for some such reason large numbers of people whose original home lay east of the Caspian Sea may have moved west along the mountain ranges as far as the Caucasus and Asia Minor. But even if we are willing to go thus far with Huntington—and there are many scholars who will not admit this much—we are still a long way from a true appreciation of the real meaning of the greatest revolution in the affairs of mankind.

The real leaven that brought about this widespread ferment was the discovery of copper and the invention of metal implements. The presence of the sturdy, long-bearded Armenoid population in Asia Minor may have been due originally to some climatic change in Central Asia ; but this remains to be proved, and even so, this occupation of the Armenian highlands oc-

curred long before the great events we are about to study. So that, even if Huntington's conclusions are granted, they afford only the predisposing and not the real and exciting cause of the world's emergence from the Age of Stone into that of Metal, and the spread of the influence of this discovery into Europe and Asia.

The introduction of metal weapons into the conflicts of nations must have had a profound effect upon the course of history. It has been pointed out earlier in this book that an equipment of metal spears and swords not only gave their possessors an immense and decisive advantage in battle, but the knowledge of the efficiency of their weapons must have given the courage to undertake great enterprises and the incentive of a consciousness of the success that was sure to attend the efforts of those supplied with the new arms.

Its immediate influence in Egypt was to weld all the petty kingdoms under one sovereignty, and the extension of the United Kingdom's influence into foreign parts.

Soon after the amalgamation of the Egyptian kingdoms expeditions were sent beyond the frontiers to obtain copper ore, wood, and other objects for which the newly developed technical skill in the various crafts had created a demand. Even in the times of the First Dynasty the Egyptians began the exploitation of the mines in the Sinai

Peninsula for copper ore, and early in the third millennium B.C. fleets of Egyptian ships were trading in foreign parts, getting cedar from the Lebanons, and far south on the Red Sea coast obtaining resins, myrrh, wood, and electrum from the Land of Punt. Meyer goes so far as to say that there can no longer be any doubt that in the times of the Ancient Empire Palestine and the Phœnician coast were already Egyptian dependencies. Whether this be so or not, there is evidence to show that an intimate intercourse had sprung up between Egypt and Palestine, as far north as the Lebanons, before the end of the Third Dynasty.

This association with foreigners beyond the borders of Egypt proper led to far-reaching consequences, not only to the Egyptians themselves, but also to the peoples with whom they came into contact, and indirectly of the whole ancient world. The people of Northern Syria no doubt learned the use of copper as the result of this intercourse, and this knowledge must have spread rapidly, eastward into Mesopotamia and northward into Asia Minor.

The Egyptians themselves from this time onward bear ample witness in their own persons to the reality of this foreign intercourse; for, by the time of the Pyramid-builders, the physical characters of the people of Lower Egypt had become modified to a marked degree by an infusion of alien blood. The remains of the people of Lower

Egypt obtained from cemeteries of the Ancient Empire present marked features of contrast to those of the Proto-Egyptians of Upper Egypt, which we have studied in previous chapters. Although they exhibit a sufficiently large number of points of similarity to make it certain that the substratum of the population is still Proto-Egyptian, there are many traits so utterly alien to the latter as to leave no doubt that foreign admixture has taken place. No competent observer who has examined material from Lower Egypt and compared it with Predynastic remains from Upper Egypt has failed to detect this obvious and unquestionable fact, which explains much of the discrepancy between the opinions of different writers upon the physical characteristics of the people of Egypt.

When Professor Flinders Petrie discovered the first archaic cemetery in Upper Egypt (1894), he recognized that the human remains found in this early graveyard presented racial characters clearly distinguishing them from those which he had found two years before (1892) in the earliest Egyptian cemetery (Medûm) examined up till then. He was thus faced with a problem the paradoxical nature of which can be appreciated only now that light has been thrown upon all the elements of his awkward dilemma. For the people whose remains were associated with the characteristically Egyptian objects in the graves of known and well-

recognized types at Medûm were less deserving of the title Egyptian (because of large alien admixture), than those Proto-Egyptians whose remains were found (1894) in graves of then unknown types and associated with objects not found in Egypt before that time. It is easy to understand that this racial paradox must have had some weight in forcing the conclusion upon him that these people whom we now know to be Proto-Egyptians were not Egyptians.

Before passing on to consider the distinctive features of the alien people and their influence in Egypt, to the discussion of which the next chapter will be devoted, it may be stated that there is no reason for supposing that these people of Lower Egypt were merely the autochthonous population of the Delta, diversely specialized from the Upper Egyptians by the force of a different environment.

It is highly probable that if we ever obtain the remains of the Early Predynastic population of Lower Egypt, it may present some points of contrast to those of the Thebaid : but many of the people who lived in the neighbourhood of Memphis during the Ancient Empire exhibit quite definite alien traits, which we can recognize as being distinctive characteristics of a known race of foreigners, who, moreover, were inhabiting a territory adjoining Egypt, and intermingling with the Egyptians, at the time these peculiarities of

cranial and facial form began to manifest themselves in the inhabitants of Egypt.

In addition to the treatises by Meyer, Breasted, and Barton referred to at the end of previous chapters a great deal of precise information relating to the Semites and other peoples in their relations with Egypt will be found in Sir Gaston Maspero's *The Dawn of Civilization* and *The Struggle of the Nations.*

CHAPTER VII

THE POPULATION OF LOWER EGYPT UNDER THE ANCIENT EMPIRE

MOST archæologists who have discussed the civilization of Ancient Egypt have harboured the idea that a great part, if not the whole, of Egypt's culture was borrowed from some foreign source. Thus it has happened that many of the anthropologists who have investigated the bodily remains of the Ancient Egyptians have begun their examination handicapped by this bias, and have made it their specific object in many cases to find, if possible, some physical evidence in the relics of the people themselves of this "foreign invasion" which the archæologists postulated.

The whole of this fiction of the alien derivation of Egyptian culture has now been swept away by the investigations carried on by Prof. G. A. Reisner and his collaborators. Reisner has given a complete and convincing demonstration that Egyptian civilization took root in the Nile Valley itself and attained its full maturity there, without borrowing its most distinctive elements from other peoples (*The Early Dynastic Cemeteries of Naga-ed-dêr*). This does not exclude the possibility

that intercourse with other peoples may have had some effect in quickening its development or in modifying its details.

Thus the anthropologist is now able to turn his undivided attention to the study of the human remains, without the disturbing consciousness that at a particular period he will be expected to bring in some foreign population to satisfy the archæologists, who supplied him with the material for his investigations.

When, in the year 1901, I began the study of the remains of the Early Egyptian people, it was my singular good fortune to be permitted to commence my investigation on the material then being brought to light in the Thebaid (at Naga-ed-dêr, about 100 miles north of Thebes) by the Hearst Expedition of the University of California, which was under Dr. Reisner's direction. Circumstances were no less propitious in decreeing that I should make my first real acquaintance with Ancient Egyptian remains by studying the well-preserved bodies and skeletons of a humble Proto-Egyptian population of the earliest known Predynastic period, whose graves were then being opened by Mr. A. M. Lythgoe. Nor did this exhaust the singularly favourable circumstances which the Hearst Expedition's labours created: for alongside this Early Predynastic cemetery, Dr. Reisner was excavating a series of graves dug during the times

of the First and Second Dynasties ; a few hundred yards away Mr. A. C. Mace was opening the tombs of persons buried in the various periods from the Second to the Fifth Dynasties ; and on the same site the members of this expedition also brought to light a very large series of tombs ranging from the time of the Sixth Dynasty through all the intervening periods to that of the Twelfth Dynasty, some in rock-cut tombs, others dug in the sandy plateaux below the cliffs. Thus there was provided a chronologically unbroken series of human remains representing every epoch in the history of Upper Egypt from prehistoric times, roughly estimated at 4000 B.C., up till the close of the Middle Empire, more than two thousand years later. To complete this unique opportunity, the archæologists brought to light upon the same site, in graves cut into the cemeteries of the then forgotten and remote past, a large series of Coptic (Christian Egyptian) graves dated at the fifth and sixth centuries of our era, i.e. immediately before Egypt became " Arabized " in religion, language, and customs.

The study of this extraordinarily complete series of human remains, providing in a manner such as no other site has ever done the materials for the reconstruction of the racial history of one spot during more than forty-five centuries, made it abundantly clear that the people whose remains were buried just before the introduction of Islâm into Egypt were of the same flesh and blood as

their forerunners in the same locality before the dawn of history. And nine years' experience in the Anatomical Department of the School of Medicine in Cairo has left me in no doubt that the bulk of the present population in Egypt conforms to precisely the same racial type, which has thus been dominant in the northern portion of the Valley of the Nile for sixty centuries.

In looking through the notes that I began compiling at Naga-ed-dêr in 1901, I find comments relating to occasional specimens, even some from graves as remote as the time of the Second Dynasty (Mace's excavations), in which the exact conformity of certain skeletons to the Proto-Egyptian type is questioned: such doubts, however, are very rare until the Sixth to Twelfth Series is reached, when they become comparatively common.

At the time these notes were made I paid little attention to these suggestions of heterogeneity—in fact, it came as a surprise to me to find these comments, when recently looking through my old note-books with the specific object of searching for such questionings; for I had quite forgotten these isolated cases—because so large a proportion of the population at the time of the fifth century A.D. still conformed to the racial standards that I had come to regard as distinctive of the Proto-Egyptians. Moreover, the only group of remains from Naga-ed-dêr that included any considerable

number of these doubtful individuals consisted of the wealthier, aristocratic people, who were able to afford rock-cut tombs ; and no doubt it was the possibility that the broader heads, finer features, and more robust skeletons may be merely evidences of an aristocratic caste which led me to attach so little importance to them in the years from 1901–1904. For it is a well-known fact that the aristocracy in any civilized state tends to acquire a better and more refined physique, not only as the result of their easier circumstances and better food, but by reason of their wider range of choice in marriage.

But in 1904 the problem presented itself to me in a much more pronounced form. In the previous year the Hearst Expedition had begun excavating the Ancient Empire cemetery around the Giza Pyramids, and I was thus afforded the opportunity of examining the remains of more than five hundred individuals, who had lived at the time of the Pyramid-builders, and had taken some part in planning and building these marvellous monuments, or in guarding them during the succeeding two centuries. For reasons which will appear in the course of this discussion, it would be difficult to exaggerate the importance of this material and the evidence it has afforded.

Here again I found a condition of affairs precisely analogous to that seen in the case of the remains from the rock-tombs at Naga-ed-dêr. A

large proportion of the remains, and especially those of women, showed a close resemblance to the majority of the Egyptian remains examined in Upper Egypt (Naga-ed-dêr) ; but there were a few that I definitely labelled " alien " in my note-books, and a considerable number in which the head was bigger and especially broader, the features finer, and the skeleton generally more robust. At that time I refused to call this more numerous group foreign, because it seemed doubtful whether they may not be merely better developed specimens of the Egyptian race, seeing that we were dealing with the remains of the highest aristocracy among the Pyramid-builders. It was not until the year 1908, when the remains of definitely alien populations, found near the First Cataract, were being submitted to critical examination, and comparison with anthropological material from Egypt and elsewhere, that the criteria were found for establishing in the remains of Ancient Egyptians the reality of certain physical traits distinctly foreign to Egypt. The nature of these alien features has been described in some detail in the Reports and Bulletins of the Archæological Survey of Nubia, and need not be set forth in detail here ; but the results of the minute examination of all the available Egyptian material, which has been studied in the light of this new knowledge by Dr. Douglas Derry and myself during the last four years, must be considered more fully. The

information thus obtained supplies the clue for the interpretation of a vast number of apparently paradoxical statements concerning the history of mankind in Africa, Asia, and Europe, which for many years have been a stumbling-block in the way of the progress of Anthropology.

Unless the historical circumstances, briefly sketched in the last chapter, be borne in mind—the probability that the process of racial admixture during the Early Dynastic period occurred in foreign lands, i.e. in Syria—the physical characteristics of the people whose remains were buried in the Giza necropolis, as well as elsewhere in the other cemeteries of Memphis, will seem very puzzling, if not wholly paradoxical. For the bones present a curious blending of features, such as we have grown accustomed to regard as distinctively Egyptian, and others equally certainly alien, perhaps even representative of two fairly well-defined foreign populations.

In stature there is no significant difference between the Proto-Egyptians and these Giza people; in fact, these Lower Egyptians were even slightly shorter than the people of Upper Egypt. Their statuary and wall-pictures make it abundantly clear that the people of Lower Egypt had black hair and eyes, like the earlier population of Upper Egypt. But the former, if no taller, were built on sturdier lines, their bones being distinctly more massive, with well-developed muscular ridges

FIGURE 8.—Profile of the skull from the Giza necropolis (*circa* 2600 B.C.), showing alien (Armenoid) traits.—Harvard and Boston Expedition s excavations.

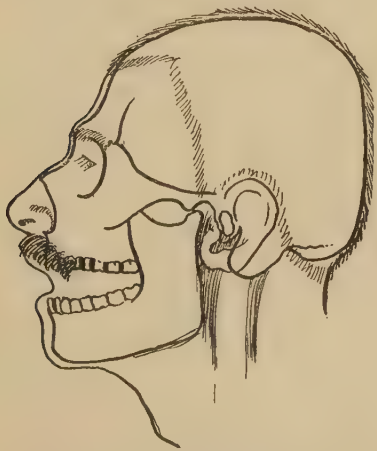

FIGURE 9.—Profile of a modern Armenian (drawn from the photograph of a head dissected in Cairo).

and impressions, and none of the effeminacy or infantilism of the prehistoric Egyptian's skeleton.

The brain-case often impresses one at a glance, not only by its greater capacity and lack of that meagre, ill-filled character usually presented by the Proto-Egyptian's skull; but even more so by the difference in its shape. The forehead has lost the narrowness, and the vertical position and much of the evenness it had in the early people of the Thebaid, and has developed a definite slope, often separated below by a groove from salient, overhanging eyebrow-ridges. The top of the head is now often flattened, and it becomes rare to find the bulged-out occiput, which is such a peculiarly distinctive feature of the Proto-Egyptians and their kinsmen of the Brown Race, living both on the west and east of Egypt; and with this flattening of the top and back of the head the angularity of the prehistoric skull becomes lost, and its shape becomes a broad ovoid, or the more exaggerated development of this form, which Sergi calls "sphenoid."

That these contrasts between the crania from Upper and Lower Egypt respectively, at the commencement of the Pyramid epoch, are not confined to a few selected individuals is shown by the means of the measurements of large series of skulls from the two territories. It will be found by examining these figures that in both sexes the Lower Egyptians have slightly shorter and loftier,

and considerably broader skulls than the people of the Thebaid.

The averages of the percentage relations (cephalic indices) of the cranial breadths and lengths in the Memphite series (Giza) of male crania is 75·6, and in the Thebaid series 7·30; whereas the corresponding figures for the females of the two series are 77·3 and 74·2 respectively. Expressed in the current terminology of the craniologists, the people of Upper Egypt were still dolichocephalic at the time of the earliest Pyramid-builders; but the inhabitants of Lower Egypt had become mesaticephalic.

The average of the cubical contents of the crania in the Giza men had risen well above 1500 cubic centimetres (*circa* 1530); and their contemporaries at Medûm and Deshasha had a mean cranial capacity of 1496 and those at Regagna of 1508: so that we may consider 1500 c.c. as a near approximation to the average dimensions of the brain (and its membranes) in the mesaticephalic group. The average capacity of the Proto-Egyptian male crania is less than 1400 c.c.; so that there was more than 100 c.c. difference in the average dimensions of the brain in the autochthonous population of Egypt before and after the alien strain was infused into it.

How much this increase in the mere bulk of the brain had to do with the precocious ripening of Egyptian civilization in Lower Egypt it is im-

possible to say. It was not sufficiently potent to deflect the stream of Nilotic culture into new channels; but it cannot be denied that the deepening and broadening of the Egyptian's conceptions and the marked aggrandizement of his achievements at this time must have been due in some measure to the stimulation of this big-brained foreign element which had been added to his constitution.

The statuary which the tombs of the Ancient Empire have yielded in such abundance (see Frontispiece) is especially instructive as a demonstration of the heterogeneity that had been introduced into the facial traits. The religious conceptions of these early Egyptians demanded the perpetuation of the body as a condition essential to the attainment of immortality: but it was realized that no artificial means had yet been discovered of so preserving the mortal remains as to retain their life-like lineaments. Hence it became necessary to make some representation of the deceased which would enable his earthly soul or *Ka* to identify its proper dwelling-place. At times they plastered over the actual mummified body with linen and a resinous paste; and then moulded this into the semblance of the man or woman. The only example of this practice that is known is the mummy supposed to be that of Ranefer, now in the Museum of the Royal College of Surgeons in

London. But more commonly they carved in wood or stone a statue of the deceased ; and it is obvious that as these statues were intended as a means of identifying the man or woman, they were life-like portraits, in which special care was given to depicting the lineaments of the face, because it was then, as it is now, the chief index of each person's individuality. The rest of the body received more casual treatment, and was usually represented in a stiff and formal manner that presents a marked contrast to the life-like realism of the face in many of the famous statues of this period.

Many of the contrasts in the form of the face, as depicted in these statues, are due no doubt to the incompetence of the sculptor, for inferior craftsmen often made gross caricatures of their sitters. Leaving these out of account, and considering only the work of the masters, there is a much greater variety of facial types than we find in the work of the archaic period. This difference might have been explained away by the supposition that the earlier efforts were so crude and childlike, that the sculptors considered themselves fortunate if they could represent a recognizable human form, and did not strive after the unattainable possibility of reproducing individual traits, if it were not for the fact that the skulls reveal to the anatomist just such differences as the portrait-statues make evident to the layman.

The Memphite sculptors depicted many individuals with broad faces of a form quite different from the long narrow ellipse or oval of the Proto-Egyptian. The skulls found in the Giza tombs also have broader faces than are found in the Proto-Egyptians, the average width of the face (bizygomatic diameter) being 6 millimetres greater in the former: but as the face is also longer (the upper facial height being more than 2 millimetres greater in the Giza skulls) the shape of the bony skeleton of the face is not markedly altered, although its size is greater. But the powerful development of muscles in the Lower Egyptians (indicated by the strongly marked muscular impressions on their bones) must have added considerably to the width in the living face and given the square shape so familiar in Ancient Egyptian statues. Moreover, the particular alien strain which makes its appearance in Egypt at the time of the Pyramid-builders is always associated in other lands with a tendency to the development of fat, which is markedly contrasted with the lean and sinewy appearance of most representatives of the Brown Race. The sleek, well-fed man of aldermanic proportions was well known in Lower Egypt during the Ancient Empire; and it is reasonable to suppose that the increased breadth of face represented in the statues was due only in small measure to the actual widening of the facial skeleton, but mainly to the more liberal covering

of muscular and adipose tissues with which the bones were clothed.

The nose was longer and relatively much narrower on the average in the Giza people ; but here again both the statuary and the actual skulls reveal much greater variations of form than we find in the Proto-Egyptians. In the discussion of the variability of the nose in the latter we have seen that it may be prominent and high-bridged in the early Egyptians without departing from the racial type to a sufficient degree to permit us to call it alien. In the Giza people the nasal skeleton was often very much longer and relatively narrower than it ever was in the autochthonous people ; and the *form* of the bones was in many instances distinctively specialized. A very characteristic peculiarity, which for convenience of reference I may call the " Grecian profile," crops up fairly often in the Giza series, but never in the native Egyptians (compare Figure 4). It consists of a straight line of nose and brow, such as the Ancient Greek sculptors loved to portray. The profile of the nasal bone runs into that of the frontal without any depression at the point of junction ; and this peculiarity, slight as it is, gives a characteristic cast to the whole face. Referring to this feature Dr. John Munro states that " it is uncommon in Greece or elsewhere, but it does exist, and is probably of mixed origin, partly Teutonic or Iberian ; partly Arabic

or Phœnician, in a word Semitic, for the nearly straight line of brow and nose is a trait of the Arabs, and sculptures from Cyprus in the British Museum (650–150 B.C.) show it in the early Phœnician as in the later Hellenic statues of that island " (*The Story of the British Race*, page 38). I do not think this statement, as it stands, conveys a true idea of the facts. The straight profile was as alien to the original populations of Greece, Arabia, and of the domains called " Teutonic " and " Iberian," as it was to the Proto-Egyptians: there are reasons for supposing that all of these peoples acquired it from the descendants of those who were dwelling in Asia Minor or Syria at the beginning of the third millennium B.C.

The orbits of a considerable proportion of the Giza people also reveal features quite foreign to those of the autochthonous people.

In the Proto-Egyptians the orbits were usually elliptical or ovoid, but invariably had their major axes approximately horizontal and their upper margins also were horizontal in more than half of their extent (see Figure : Predynastic A and B). Occasionally the form may approximate to a circular outline (Figure B) ; but the upper margin still conforms to the rule.

Amongst the Giza skulls we find a considerable proportion with orbits that do not conform to these canons. Orbits of irregularly ovoid or lozenge-shapes with very oblique axes (Figure

Alien A and B), and upper margins which depart more or less widely from the horizontal plane

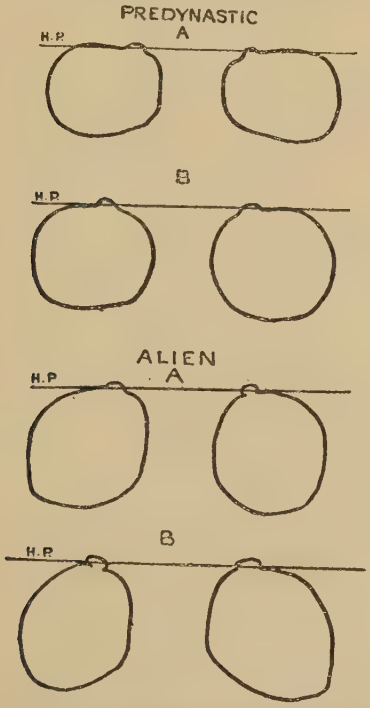

FIGURE 10.—Types of orbital outlines in two Predynastic Egyptians and two aliens from the Giza necropolis.

(H.P.). In addition the orbits are often much larger, of more varied form, and have thicker

margins. A rarer but peculiarly distinctive alien type consists of an originally square orbit, the infero-lateral corner of which has been dragged downward and outward.

Such forms of eye-sockets were no doubt associated in many cases with large eyes, such as the sculptors of the Ancient Empire were fond of portraying.

It would be possible, if space permitted and we were free to plunge into technical discussions, to take up every part of the skeleton in turn and demonstrate the acquisition of alien features by the Lower Egyptians. But I must content myself with one other example—one, moreover, which lends itself most admirably to the display of those racial contrasts, such as are associated with other differences of skull and skeleton that call for more exact technical knowledge for their appreciation. I refer to the lower jaw.

Being a part of the skeleton that has extensive surfaces and processes adapted for the attachment of muscles, it might be imagined—in fact, some competent anatomists still harbour this delusion—that the lower jaw becomes so modified in form by the muscular development of the individual as to afford an unreliable, if not actually deceptive, index of the race of its possessor. I need not enter into a refutation of such views, for the late Professor Rolleston showed that these objections are utterly groundless (see Greenwell and Rol-

leston, *British Barrows*, 1877, pages 652 *et seq.*), and has insisted upon the exceptional importance of the mandible as a racial document.

Great muscular development will alter the size and the ruggedness of the bone, but cannot affect those essential features in its form which reveal racial traits. Nor, again, is the shape of the bone determined by the form of the cranium, as some anatomists maintain.

The most powerfully built man of Armenoid race may have a jaw precisely similar in form to that of the frailest woman of similar ancestry: but the most extreme development of the muscles of mastication in a Proto-Egyptian cannot give the jaw an Armenoid form. Amongst Armenoids we find individuals with crania quite as narrow as many Egyptians, yet the jaw still retains the form which is distinctive of the Armenoid people.

In the accompanying diagram I have drawn to scale (by means of a camera lucida) sixteen jaws, seen in profile from the left side. (Four others are shown in situ in Figures 1, 8, and 9.) It will be seen that though the five examples of Predynastic mandibles (i to v) present certain minor variations in form, such as the angle (A) at which the body (B) joins the ramus (R), the shape and depth of the sigmoid notch (S), and the inclination and size of the coronoid process (C), they all agree in being small, and in having a very short and relatively (and often absolutely) broad ramus (R), and a

shallow sigmoid notch (S). In addition there are distinctive features that cannot be displayed in the diagrams—the pointed form of the chin and the absence of any eversion of the angle (A).

These five examples illustrate the range of the common variations of the Proto-Egyptian mandible. I have omitted certain still more primitive shapes, in which the ramus approximates still nearer to a square form and the sigmoid notch becomes still shallower, because they are not pertinent to the comparisons I propose to institute.

These Proto-Egyptian forms of jaw always occur frequently in all collections of skulls from Egypt of any date or provenance, and are also the prevailing types amongst that large family of peoples which I have referred to as constituting the Brown Race.

But early in the Dynastic period, perhaps occasionally before its commencement, jaws of a very different shape begin to make their appearance in Egypt. Some of these alien forms are represented in figures vi to xvi. Numbers vi, ix, x, xi, xii, and xvi came from the Ancient Empire necropolis at the Giza Pyramids ; No. viii is probably still earlier, because it came from the archaic site near Naqada excavated by Flinders Petrie in 1894–1895 ; Nos. vii and xv came from Royal Theban tombs of the Eighteenth Dynasty ; Nos. xiv and xvi are the jaws of Syrian immigrants into Nubia, about 600 A.D. ; and for comparison

JAWS
PROTO-EGYPTIAN VARIETIES
EXAMPLES OF ALIEN FORMS
PREDYNASTIC
F.P.
C
S
Con.
R
A
B
i
ii
iii
iv
v
♂
♀
vi
vii
viii
ix
x
GIZA
THEBES; DYN. XVIII
NAQADA
GIZA
GIZA
xi
xii
xiii
xiv
xv
xvi
GIZA
DYN. IV-VI
GIZA
DYN. IV-VI
BAVARIAN
(MODERN)
BIGA
CIRC. 6TH CENT. A.D.
IKHNATON
DYN. XVIII
BIGA
CIRC. 6TH CENT. A.D.

FIGURE II.

No. xiii is the jaw of a modern "Alpine" inhabitant of Bavaria.

It would be an easy matter to multiply such examples a thousandfold from all parts of Egypt and elsewhere: but these will suffice to illustrate my point. In spite of great variations in size, in their relation to the Frankfort Horizontal Plane (F.P.), in the inclination of the body on the ramus, and in the form and strength of the bone as a whole, they all differ from the Predynastic examples in having a taller and often narrower ramus. They often have a deeper, narrower sigmoid notch and a prominent coronoid process: most of them have a broad, square chin, and many of them a strongly everted angle. As a whole they are also much more powerfully built. I have placed amongst them the Armenoid jaws from Biga, the "Alpine" jaw of the modern Bavarian, and those of people of the Eighteenth Dynasty in Egypt, who are known to have intermarried freely with the Mitanni of North Syria, for the purpose of suggesting that the Armenoid, "Alpine," Syrian, "Kleinasiatisch," or whatever name one likes to apply to this racial type, is identical with that found in the Giza necropolis.

Although considerable variation occurs in this alien series (vi to xvi), it will be noticed that the heterogeneity is *not* due to the placing in juxtaposition of bones representative of different countries and ages, or even sexes. The same

variability is found in the people buried at Giza (ix to xii) more than forty-five centuries ago, as is exhibited in the aliens buried in Nubia (xiv and xvi) more than 3000 years later and in the modern Armenoids.

In the final chapters I shall have occasion to refer to the geographical distribution of people possessing this type of jaw : but I may remark at once that it is so widespread among people living under every possible variety of climate and circumstance, as utterly to preclude any idea that the presence of these features in Egypt is to be explained by the influence of the environment of the Delta upon the autochthonous inhabitants of the Nile Valley.

This criticism has been served up with the utmost regularity upon every occasion when I have discussed this matter with anthropologists. But the onus of proof that these peculiarly distinctive traits, occurring in a population more than 60 per cent of whom conform to a different type, are *not* valid evidence of racial heterogeneity, rests with the critics, who must explain why it is that in the flat, warm, marshy Egyptian Delta, in the hot, dry fringe of the Sahara, and in the Canary Isles these peculiarly diverse surroundings should have shaped the jaws (as well as the rest of the physical structure of these peoples) in precisely the same mould as the vastly different environments of the high peaks of the Alps, the highlands of Armenia

and the Caucasus and the tableland of the Pamir have done.

There is one curious feature displayed in the Memphite statuary to which I must refer.

Although most of the statues and wall-paintings represent the men either clean-shaven, with or without a ceremonial chin-beard, or wearing an actual chin-tuft beard, it is not uncommon to find them (at Giza, Saqqara, and at Medûm) shown with a moustache, which was never worn in association with any other facial hair, either real or false.

What significance this fact may have is wholly unknown. Yet a suggestion may be thrown out in a tentative way, in lieu of more precise information.

When we recall the distinctive racial value attached to the mode of wearing the facial hair, which I discussed in the last chapter, and remember how constant the Egyptian remained throughout his whole history to the habit of shaving his face and wearing an artificial chin-beard, two possibilities present themselves. The habit of wearing the moustache may have been the custom in Lower Egypt before the amalgamation of the two kingdoms, and certain nobles persisted in observing the habit. We have no evidence in support of such a view. On the other hand it may be further evidence of the alien element in Egypt. But if this is so, we do not know of any people living fifty centuries ago who wore the moustache! Nor do we know of any

people who would adopt this custom for reasons analogous to those which dictated the peculiar styles of shaving affected by the Egyptians and Arabs respectively (see preceding chapter).

The fact that the habit of wearing a moustache only is the reverse, or the complement, of that affected by the Arabs and Syrian Semites reminds us of the influence of racial antagonisms in Asia Minor and Syria to-day. It is said that the antipathy of the Armenians and Kurds finds expression in an artificial exaggeration of their naturally peculiar head-forms. The natural flattening of the Armenian child's head is still further emphasized by pressure applied to the occiput (Figure 9), lest he be confused with a Kurd: and the naturally long-headed Kurdish baby is said, according to Ripley (quoting Chantre), to have to submit to a lateral compression of its head to add to its narrowness and its contrast to that of the Armenian.

Perhaps an analogous feeling existed in the same locality five thousand years ago, something of the nature of a prehistoric "Anti-semitismus"; and the Armenoids of Asia Minor and Northern Syria distinguished themselves from those of their kinsmen, who had intermingled with Arabs and adopted Arabic customs, by wearing their facial hair in the way that contrasted most markedly with the latter. But we must leave such speculations and return to the consideration of facts.

It must not be imagined that the evidence obtained from our study of the human remains buried in the Giza necropolis by the Pyramid-builders stands alone. Material of the same epoch obtained by other excavators in Lower and Middle Egypt, such as that obtained by Flinders Petrie at Medûm and Deshasha, now in the museums of the Royal College of Surgeons in London and of the Department of Anatomy in Cambridge respectively, presents the closest likeness in every respect to that obtained by the Hearst Expedition at Giza. In support of this statement there are not only the measurements supplied by Petrie, but also his photographs of some of the skulls published in the fifteenth memoir of the Egyptian Exploration Fund (1898) : in addition, Professors Keith and Macalister, in London and Cambridge respectively, kindly permitted me to examine the bones themselves, and I have been able to confirm the striking similarity of these skulls to those from Giza. Then, again, there is the large series of wonderfully realistic statuary of kings and nobles of the Ancient Empire, now scattered in museums throughout the world, to convince anyone who may be sceptical of the reality of this racial admixture.

The frontispiece, which represents a Fifth Dynasty statue from Saqqara, gives a good idea of the life-like realism of these statues.

Other skeletons, buried a few centuries later

(Middle Empire—*circa* 2000 B.C.) at Saqqara (Quibell's excavations for the Egyptian Antiquities Department), at Lisht (Lythgoe and Mace, working for the Metropolitan Museum of New York), and still further south at Beni Hasan

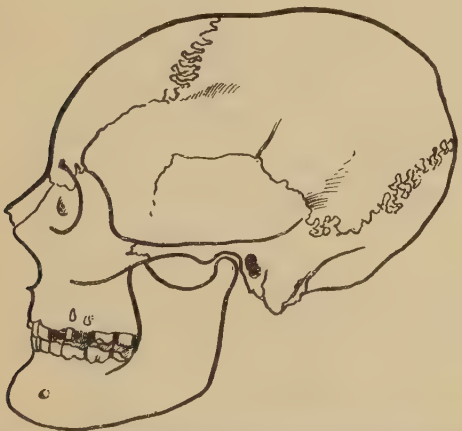

FIGURE 12.—Profile of a skull exhibiting alien traits, obtained by Flinders Petrie at Medûm (Fourth Dynasty): now in the Museum of the Royal College of Surgeons in London.

(Garstang's work for the University of Liverpool) have been examined by Dr. Derry and me, and have been found to yield ample evidence of the continuance and the southern diffusion of the effects of this alien admixture. (See map on page 89.)

But we have also been able to demonstrate

its extension still further up the Nile Valley, for in the large series of crania from Naga-ed-dêr in Upper Egypt, to which I have referred earlier in this chapter, the collection representing the period from the Sixth to the Twelfth Dynasties bears ample witness to the reality of this infusion of foreign blood in the Thebaid. Nor in this case, again, is there lacking impartial evidence from other witnesses to support the statement: for, in discussing the material found in Upper Egypt, at Regagna, by Garstang, which was supposed by him to have come from the graves of the Third and Fourth Dynasties, but has since been shown by Reisner to be really Fifth, Thomson and Randall-MacIver refer to it as evidence of "a foreign intrusion" into the Thebaid, forming "a settlement of large-headed men who, as we have reason to suppose, were brought from Middle or Lower Egypt" (*The Ancient Races of the Thebaid,* page 112). Typical examples of aliens, perhaps of an earlier age still, occur among Petrie's and De Morgan's archaic collections from Upper Egypt.

By the time of the Middle Empire, or at most a century or two later, people presenting these alien traits had extended so far south that we (Derry and I) have found occasional examples in Nubia, nearly a hundred miles south of the First Cataract (8th Bulletin, Archæological Survey of Nubia).

Thus, long before the time of the New Empire, Egypt was permeated from one end to the other with this foreign element; and as the result of the military campaigns which the Pharaohs of the Eighteenth and succeeding Dynasties undertook in Syria and the political hegemony which Egypt established over Western Asia, a very strong reinforcement of these alien traits was established, partly, perhaps, by a fresh stream of Asiatic immigrants attracted to imperial Thebes, but no doubt mainly by the intermarriages of Egyptians and Asiatics. It is instructive to find that the study of the physical traits of the Theban nobility of the New Empire, whose remains have been preserved for us in such vast numbers, reveals the fact that the alien traits so frequently found in these people, who, as we know from their historical records, freely intermarried with North Syrians and Mesopotamians, conform to those imprinted in the bones of the population of Lower Egypt more than a thousand years earlier. This is further evidence in support of my identification of the earlier people as Asiatics.

Thus the process of racial fusion begun in the Delta at the dawn of history spread through the whole land of Egypt. Just as the original narrow-headed Neolithic population of Europe had grafted upon it, at the beginning of the Bronze Age, a broader-headed race, alien to Europe, so Egypt suffered a similar fate; and its Proto-Egyptian

population was blended with the immigrants to become the Egyptians of History.

In the next chapter I shall endeavour to show that this comparison of events in Europe and Egypt is not a mere analogy, a mere similarity brought about by the operation of factors utterly different in themselves : it is rather an instance of what is known in biology as homology, the Proto-Egyptian being the representative of his kinsman, the Neolithic European; and the immigrant population into both Europe and Egypt two streams of the same Asiatic folk. Why the mixtures of homologous populations led to such vastly different results in Europe and Egypt respectively will be discussed in the next chapter.

If it be asked when this alien influence first made itself apparent in the physical characters of the people of Egypt, it can be stated with certainty that there is no definite trace of it in Upper Egypt in Predynastic times, and only rare sporadic instances before the time of the Fifth Dynasty, when foreign traits became fairly common among the aristocracy. Lower Egypt has not yet afforded much evidence of the archaic period; but the information now in our possession seems to prove that Armenoid traits occurred in some few skeletons of Proto-dynastic date and became common in the times of the Third and Fourth Dynasties, i.e. long before they appeared in Upper Egypt.

CHAPTER VIII

THE MUTUAL RELATIONS OF EGYPT AND WESTERN ASIA

IN the words of Sir Gaston Maspero, "inveterate prejudice alone could prevent us from admitting that the Egyptians of the Memphite period went by sea to the ports of Asia and to the peoples beyond the sea." In the preceding chapter I have briefly indicated the nature of some of the evidence in support of this statement, derived not only from the written documents of the Egyptians, but also from the records which Nature has imprinted on the bones of the people themselves.

The attempt to answer the question of the source and affinities of the alien element in the hybrid population of the Memphite kingdom and the adjoining strip of Palestine raises for discussion one of the most difficult problems in the whole range of anthropological enquiries.

For we must enter that maelstrom of Western Asia, where for long ages the varied racial currents from Asia, Africa, and Europe have met and mingled in a bewildering confusion of tongues and people: no more forbidding problem in anthropology could be imagined than the attempt to evolve any semblance of order out of this chaos.

Moreover, the views of scholars upon the interpretation of this puzzle are so manifold and so conflicting that in our extremity we cannot, even this once, indulge ourselves by falling back on authority to escape the difficulties of the situation.

Attacking the problem from the standpoint of anatomy, in other words, discovering what tale the human remains have to tell, the implements are struck from our hands at the very outset of the enquiry by the fact that the materials for the investigation of the physical characters of the early peoples of nearer Asia are almost wholly lacking; and we are driven to rely upon pictures and statuary and the study of the living population.

The great oblong strip of land, bounded on the west by the Mediterranean and on the east by India, on the south by Arabia and the Arabian Sea, and on the north by the highlands of Asia Minor, the Caspian Sea, and the mountain ridge, the eastern fragment of which forms the Hindukush, has been the crucible in which the human ingredients of the early civilizations have been mixed for fifty centuries and more.

Geographically a part of Asia, it is more probable than not that ethnically this territory was originally an appendage of the African home of the so-called Mediterranean peoples, before the real Asiatics poured into it, both directly, from the

Turanian steppe through the break in the northern mountain barrier, and indirectly from the neighbourhood of the Caucasus and the Armenian highlands.

At various periods in its later history it was under the hegemony, either wholly or in part, at one time of some one of the various Asiatic powers, at another of Egypt, and later, again, of such European powers as the Empires of Greece and Rome. Thus Western Asia has been swept times and again, almost without number, by conquering hordes and the no less severe ethnical disturbances of peaceful infiltrations, converging from every point of the compass in turn: the people of the Turanian steppe, the Armenoid population of the highlands of Asia Minor and the Caucasus came from the north; the Semites of Arabia, originally coming from the south, penetrated this area of confused nationalities at its north-western corner; Egypt penetrated into Asia by the same route; and from time to time the peoples of Asia Minor, Imperial Greece and Rome overran the country from the west. How, then, is it possible to learn anything to-day from the contents of this cauldron, filled with such an assortment of ingredients and still seething from the effects of the disturbance incidental to the harsh process of mixing of such incompatible elements! At first glance the problem does, indeed, seem utterly hopeless: nevertheless I think that the laborious process of

sifting the data relating to this land of ethnic confusion, which has been summarized so lucidly by Ripley, has not been wholly sterile. In a little book of these dimensions it is out of the question to examine all the evidence bearing upon the racial history of Western Asia ; so I must content myself here with setting forth a working hypothesis embodying all the known factors, which have any direct bearing upon the Egyptian problems that have led up to this discussion. Although I have drawn largely upon Ripley for information, I shall not slavishly follow his leading, because he does not pretend to be a biologist, and some of his statements concerning racial affinities are wholly untenable.

I think that Sergi and those who follow him are justified in assuming that the original population of Asia Minor and Palestine was a people akin to their contemporaries in the whole of the rest of the Mediterranean littoral. If there is any cogency whatever in the reasoning of those anthropologists who consider that the widely-scattered Mediterranean dolichocephalic people developed their distinctive peculiarities in some area widely separated from the home of the Asiatic brachycephalic people, it must follow that the Armenoid population of Asia Minor intruded into this region long after it (or, at any rate, its lowland parts and coast lands) had been occupied by the long-headed " Mediterranean " people. I do not think a

consideration of all the facts will permit us to accept von Luschan's view that the *earliest* population of Asia Minor was Armenoid. The evidence seems to point to the region between the Pamirs and the Hindukush as the original home of the Armenoid population ; and that from this centre it spread westward beyond the Caspian and occupied the highlands of Asia Minor and its neighbourhood. Where these people originally came from, however, is not a matter of vital importance to us in this enquiry, for they were already in occupation of Armenia and Asia Minor before our story begins. It is certain that they were already in that region before the close of the fourth millennium B.C., for the Egyptians acquired Armenoid traits as the immediate result of their intercourse with Northern Syria, and we know that this commerce was in progress at the time of the Third Dynasty (2800 B.C.), and possibly earlier, and the strongly Armenoid Semite represented upon the ivory from King Qa's tomb takes us back before 3000 B.C.

Moreover, the old Babylonian sculptures demonstrate the fact that the earliest Semites to enter Mesopotamia and Babylonia had acquired the Armenoid type of nose and the characteristic flowing beard by the time they intruded into the dominions of the Kings of Akkad and Sumer. Now, if the generally accepted view is true, that Arabia was the original home of the Semites, the Arab must have undergone a profound change in

his physical characters after he left his home land and before he reached Babylonia. The population of Arabia had certainly overflowed into Palestine by the time of the Third Egyptian Dynasty, and probably much earlier; and in this land they would have intermingled not only with the autochthonous "Mediterranean" population there, but also, in Northern Syria, with the Armenoid people. This blend of Arabs, kinsmen of the Proto-Egyptians and Armenoids, would then form the big-nosed, long-bearded Semites, so familiar not only on the ancient Babylonian and Egyptian monuments, but also in the modern Jews.

It is curious to reflect how it could have come to pass that such a rude, untutored people, as the Arabs are supposed to have been at this time, impressed their language and customs on a sufficiently large proportion of the more highly endowed Armenoids to have acquired in so marked a degree the physical characters of the latter. It is perhaps even more a subject for wonder that this Armeno-Arabian blend, at that time relatively uncultured, could have overcome the highly civilized Sumerian population established around the estuary common to the Tigris and Euphrates at the head of the Persian Gulf, and have adopted their culture and their knowledge of the arts. Upon a priori grounds one would have expected the Sumerians to have assimilated the Semites; but the reverse actually happened.

Scholars have marvelled at these historical events, and for long have struggled against admitting their reality ; but the discoveries of recent years make it impossible to refuse to recognize that some such events as I have thus crudely sketched did actually take place.

But it is quite possible that the mysterious power which the Arabs displayed in their dealings with the Armenoid people of Northern Syria, no less than in subjugating their forerunners in the occupation of the Valley of the Euphrates and Tigris, was largely due to their possession of copper implements, which they must have acquired during their intercourse with the Egyptians in Sinai, the eastern Delta and in Palestine.

Might not this knowledge of metals, which led to the fusion of Egypt into one sovereignty, and, as we shall see, gave the people of Asia Minor the key to Europe, have also been the secret of the mysterious power of the Arabs ?

In the whole of Western Asia, bristling as it is with the manifold difficulties already hinted at in this chapter, there is perhaps no problem which is quite so enigmatical as that concerning the origin and affinities of the Sumerians. Until quite recently there had been many—even now Halevy may have some disciples—who refused to believe in the very existence of any such people, affirming that the writing called Sumerian was nothing else than some secret hieratic script of Babylonian.

But such views are now no longer tenable, for recent excavations around the head of the Persian Gulf have resolved all doubts as to the reality of the Sumerian people.

In King's interesting *History of Sumer and Akkad*, which is based largely upon Meyer's memoir, published in the Transactions of the Royal Prussian Academy of Science in 1906, the contrasts between the physical characteristics of the Semites and Sumerians are discussed. The most obtrusive distinctive features in the statues and pictures of Sumerians that sharply distinguish them from the Semites are their clean-shaven face and scalp. "The Sumerian had a prominent nose, which forms, indeed, his most striking feature, but both nose and lips are never full and fleshy as with the Semites."

I have repeatedly referred in the last three chapters to the fact, generally recognized by ethnologists, that there is a widespread tendency among primitive peoples to exaggerate those distinctive features with which nature has endowed them. The Armenoid peoples and those who, like the Babylonian Semites, had a large element of Armenoid blood in their constitution, took obvious pride in their luxurious endowment of hair, and in their pictures and statuary duly emphasized these distinctive features. If such analogies hold good in all cases, it would imply that the affinities of the Sumerians must be sought

for among naturally glabrous people. Now the only peoples, in this region of the world, who were scantily endowed with facial hair were the Mongols, thousands of miles away on the north-east, and the Proto-Egyptians, almost equally far distant on the west, with the unshaven Arabs interposed between them. But the prominent, almost Armenoid, nose of the Sumerians is quite incompatible with any suggestion of Mongol affinities, which many writers are so fond of making, in the case not only of the Sumerians, but even of less Mongoloid populations in Western Asia.

There can be no possibility of the Proto-Egyptians themselves having spread so far east as Sumer : but that their congeners did occupy this territory and even further east, into India in fact, is not only considered possible, but is stated almost as an established truth by Ripley, and long before him by Huxley (*Man's Place in Nature*). A great deal of ingenuity has been displayed by many scholars with the object of bringing these Sumerians from somewhere else as immigrants into Sumer ; but no reasons have been advanced to show that they had not been settled at the head of the Persian Gulf for long generations before they first appeared on the stage of history. The argument that no early remains have been found is futile, not only because such a country as Sumer is no more favourable to the preservation of such

evidence than is the Delta of the Nile, but also upon the more general grounds that negative statements of this sort cannot be assigned a positive value as evidence for an immigration. There can be no doubt that the Proto-Egyptians had been living in the Nile Valley for many generations before the earliest Predynastic graves known to us were excavated.

It can be accepted as a self-evident proposition that, when the Neolithic people spread broadcast throughout the globe looking for eligible sites for settlement, the garden of the world, the paradise of the Ancients, precisely the kind of spot that would have attracted early man, was left unoccupied, while all around it sites barren and uninviting, in comparison with the valleys of the Euphrates and Tigris, were inhabited. Yet recent writers talk of the Sumerians suddenly taking possession of the land of Sumer, at some time after the dawn of the Bronze Age, and bringing with them ready-made a high civilization and an intimate knowledge of agriculture specially adapted to Babylonian conditions, which they are said to have acquired upon the Turanian steppe, or in the deserts of Arabia, or on the beaches of the Erythræan Sea, while subsisting on a diet of fish! The whole supposition is surely a *reductio ad absurdam*. Highly developed civilizations rooted in an agricultural mode of life are not suddenly transplanted in this fashion. Until very definite

and conclusive evidence is brought forward to demonstrate the error of such a hypothesis, we must conclude, in view of the history of the origin of similar cultures elsewhere, that the Sumerian civilization was evolved in Sumer and by the Sumerians.

I have already referred to Ripley's statement that the kinsmen of the Proto-Egyptians and the other Mediterranean peoples originally occupied the whole of this strip of Southern Asia, even extending into India. In support of this contention he urged the fact that there is a very large dolichocephalic population, Kurds, Iranians, Afghans, and others, now occupying this territory, whose presence can be explained only by some such supposition.

Andrae and Noeldeke, excavating at Fara, in the valley of the Lower Euphrates, in 1903, found certain interesting early graves, of which, unfortunately, no full account has yet been given. King (*op. cit.*, page 26) summarizes their results in these words. The graves "consist of two classes, sarcophagus graves and mat-burials." "The sarcophagi are of unglazed clay, oval in form, with flat bottoms and upright sides, and each is closed with a terra-cotta lid." "In the mat-burials the corpse with its offerings was wrapped in reed-matting and placed in a grave dug in the soil." "The bodies were never buried at length, for in both classes of graves the skeletons are found lying

on their sides with their arms and legs bent." "The right hand usually holds a drinking-cup, of clay, stone, copper or shell, which it appears to be raising to the mouth; and near the skull are often other vessels and great waterpots of clay." "In the graves the weapons of the dead man were placed, and the tools and ornaments he had during life." "Copper spear-heads and axes were often found, and the blades of daggers with rivets for a wooden handle, and copper fish-hooks and net-weights." "The ornaments were very numerous, the wealthy wearing bead-necklaces of agate and lapis-lazuli, the poorer contenting themselves with paste and shell, while silver finger-rings and copper arm-rings were not uncommon." "A very typical class of grave furniture consisted of palettes or colour-dishes, made of alabaster, often of graceful shape, and sometimes standing on four feet." "There is no doubt as to their use, for colour still remains in many of them, generally black and yellow, but sometimes a light rose and a light green."

Now, although these graves are described as being "prehistoric Sumerian" it is patent that they cannot be much earlier than the First Egyptian Dynasty, unless it be admitted that the discovery of copper was made in two places, Egypt and Sumer, at about the same time. Dismissing this proposition as highly improbable and quite incredible, the many points of resemblance of these

Sumerian graves to those of the First Dynasty in Egypt cannot be overlooked. It seems altogether unlikely that such similarity can be wholly fortuitous ; nor can there be any reasonable doubt, in face of our present knowledge of the history of the evolution of copper and the burial customs in Egypt, that if borrowing took place it was Sumer that learned from Egypt, and not the reverse.

But if Sumer did obtain this knowledge from Egypt, what route could it have followed? Was it passed up through Syria along the hypothetical pathway we have already mapped for the Arabs to the upper end of Mesopotamia, thence downstream to Sumer : or was information conveyed direct from Egypt across Arabia or round by sea to the Persian Gulf? We know nothing of the early history of Arabia or of the maritime exploits of the Early Egyptians in these southern seas, beyond the record of one journey to Punt, and possibly to Hadramut also, in Zoser's reign, so that this side of the question must remain in darkness. But if Egypt entered into relationship with Sumer by the northern—Syro-Mesopotamian —route, and exerted sufficient influence there to cause the Sumerians to imitate the burial customs of Protodynastic Egypt, the hypothesis of the Semitic conquest of Babylonia and its causal relationship to the spread of the knowledge of copper fails. The use of copper for ornaments

and simple tools may have spread before its value for the manufacture of weapons was recognized.

This much, however, cannot be gainsaid: the few scraps of information we possess regarding the physical characters, habits of life, the arts and customs of the Sumerians, suggest that they were a people like the Egyptians, had similar customs, and either pursued a precisely parallel course of development, or kept in touch with Egypt's progress by some means as yet hidden from us.

In other words, Sumer may have been the home of the eastern wing of the great Neolithic band of kindred nations of the Brown Race, whose western flank was in Britain.

I have wandered thus far from the surer ground of Egyptian relations in the hope of finding evidence, both of a positive as well as of a negative kind, that might enable me to circumscribe the area of distribution of the alien population which mingled with the Egyptians in Lower Egypt at the dawn of history.

In the last chapter I referred to some of the outstanding distinctive features of the skulls of these alien immigrants—the peculiarities of cranial form, of orbit, nose, and jaw. A short time ago I examined the magnificent series of thousands of crania, obtained in Asia, Europe, and North Africa, contained in the Museum of the Royal College of Surgeons in London and in the Anatomical Museum in Cambridge, which were

generously placed at my disposal by Professors Keith and Macalister respectively ; and in Asia (Europe and Africa must be left for consideration in the next chapter) the following curious distribution was found of what I shall call the alien traits of the Giza series (or briefly the " Giza traits "). Such distinctive features were found in crania from all parts of Palestine and Asia Minor and in ancient specimens from Palmyra : but they became really common only when the series from Persia and Afghanistan were studied. Going further east, " Giza traits " were found to be fairly common in the Punjab, but were almost completely absent elsewhere in India. They were numerous in material from Southern Russia, but were found in only three or four of the many specimens from the Chinese Empire.

If we take a map of the area of junction of Asia with Europe and Egypt, and bear in mind the fact that the Early Neolithic people of Europe seem never to have dwelt in high mountainous districts, it will be found that the geographical circumstances tend to support and corroborate the contention, put forward in the preceding paragraphs on other grounds, that the kinsmen of the Mediterranean and Hamitic peoples overflowed, so to speak, from the Mediterranean and East African littorals into the whole peninsula of Arabia and the shores of the Persian Gulf. In other words Syria, Arabia, Mesopotamia, and Sumer

were parts of the original domain of the Brown Race.

The forbidding mountain ranges and deserts of Iran and Armenia, and beyond, formed a great impassable barrier beyond which these dwellers of the plain dared not venture. But behind this great natural wall another race, also of short stature and brunet traits, had been evolving features distinctive of itself. In the course of ages those features of cranium and face to which I have repeatedly referred as "Armenoid" were gradually assumed, as well as another trait peculiarly distinctive of this group of peoples, the long beard, which forms perhaps the most obvious contrast between this population and the "Brown Race."

What the original home of this "Long-bearded Race" was there is no certain evidence to show, although there is some suggestion that in the neighbourhood of the Pamir people exhibiting their distinctive traits are found in greatest purity.

By the time the advance-guard of the Brown Race came into contact with the Long-beards, the latter were not only in occupation of the Armenian highlands, but they had begun to follow the line of mountain ranges still further west, across the Bosphorus to the Balkans and into the heart of Europe, where the Alps and the highlands of Europe seemed to exercise a peculiar attraction for this sturdy race of mountaineers.

The working hypothesis that seems to have shaped itself from these considerations may now be set forth in a concise form.

The Egyptians, Arabs, and Sumerians may have been kinsmen of the Brown Race, each diversely specialized by long residence in its own domain; and in Predynastic times, before the wider usefulness of copper as a military instrument of tremendous power was realized, the Middle Predynastic phase of culture became diffused far and wide throughout Arabia and Sumer.

Then came the awakening to the knowledge of the supremacy which the possession of metal weapons conferred upon those who wielded them in combat against those not so armed. Upper Egypt vanquished Lower Egypt in virtue of this knowledge and the possession of such weapons. The United Kingdom pushed its way into Syria to obtain wood and ore, and incidentally taught the Arabs the value of metal weapons. The Arabs thereby obtained the supremacy over the Armenoids of Northern Syria, and the hybrid race of Semites formed from this blend were able to descend the Euphrates and vanquish the more cultured Sumerians, because the latter were without metal implements of war.

The non-Semitic Armenoids of Asia Minor carried the new knowledge into Europe.

If this working hypothesis can be proved to have any solid basis of fact, it will solve a large group of

the most puzzling enigmas in the whole range of anthropological enquiries.

For further information concerning the subject matter of this chapter see especially the works of Meyer, Breasted, Maspero, and Ripley, already quoted at the end of previous chapters.

Also consult Meyer's *Sumerier und Semiten in Babylonien* (Abhandl. d. k. Preuss. Akad. der Wissensch., 1906); King's *History of Sumer and Akkad;* and the notes published by Andrae and Noeldeke in the *Mitteilungen der Deutschen Orient-Gesellschaft* from 1902 onwards.

CHAPTER IX

THE MANNER OF THE SPREAD OF EGYPTIAN INFLUENCE

IN the last chapter I attempted to follow to its source the alien strain which made itself apparent in Egypt at the dawn of history; and we saw how difficult it was to find any clear pathway amongst the amazing tangle of conflicting races in the threshold of Asia. However, there seemed to be a definite track, strewn with the distinctive clues of the people we were following, which led us into the vicinity of Persia and Afghanistan.

There is now an almost general consensus of opinion amongst anthropologists, from which, however, a small but rapidly dwindling band of scholars still withhold their adhesion, that a series of great waves of immigration came from Asia to Europe.

It is quite certain that stragglers from Asia had been making their way into Europe for a long time before the first really big immigration, which brought the Neolithic Age to a close.

The vanguard of this Asiatic host first introduced into Europe a knowledge of copper and of the invention of metal tools: this stirred the sluggish Neolithic culture into more vigorous

and varied growth, which ultimately fructified in the crowning glory of human endeavour, the civilization of Europe. The languages brought from Asia almost completely supplanted those of the Neolithic people: they took firm root in Europe and developed into the luxuriant series of diversely specialized tongues, which were cultivated by the various peoples scattered throughout the continent.

Among the manifold changes which this infiltration of Asiatics produced in Europe there was one custom, the practice of cremation, which has attracted a considerable amount of attention. It is so foreign to all the ideas and customs of the Neolithic population of Europe, whether we consider the short brunets of the south or the tall blonds of the north, that it in itself affords most positive evidence of the introduction of some alien influence into Europe at the beginning of the Age of Metals.

In his great book on *The Races of Europe* Ripley has given a masterly summary of the convincing evidence, which clearly demonstrates the source of this stream of Asiatic immigration into Europe in the highlands of the Pamirs, north of the Hindukush; and it came as a great surprise, when I began to follow the track of the people possessing "Giza traits," to find that I was led westward to an area of greatest concentration of these traits,

in the neighbourhood of the spot where, thirty years ago, Topinard, on the basis of Ujfalvy's illuminating researches amongst the Galcha tribes in the Pamirs, located the original home of the so-called "Alpine" or "Celtic" broad-headed race of Europe.

When I realized this parallelism between the histories of Egypt and Europe; how that in each case the Neolithic dolichocephalic population of each country became diluted with a broader-headed alien population of short, sturdy brunets, roughly coinciding with the introduction of metals; and, moreover, that the alien population in both cases probably came from the same locality in Asia, it became imperative that a direct comparison should be instituted between the Early Bronze Age remains of Europe and the "Giza population" in Egypt. When this comparison was made there was no longer any doubt in my mind that the Asiatic infiltrations into Europe and Egypt were certainly only the divergent streams of one and the same great racial flood.

It was at first somewhat puzzling to find a much more intimate likeness to the Giza people in the Bronze Age population found in the Round Barrows of Britain than in the European material. But the explanation seems obvious enough, if the geographical circumstances be taken into account. The great Asiatic stream passed across Asia Minor

to the Balkan Peninsula (no doubt, in part, on the northern side of the Black Sea also) and thence to the heart of Europe. Egypt was off the main track, and so received only a relatively small contribution of the broad-headed element to modify her prevailing narrow-headedness; and Britain, at the remote western extremity of Europe, was shielded from the full blast by the whole breadth of the continent.

Thus the composition of the racial mixture in Britain and Egypt presents many analogies: the ingredients of the blend were essentially identical, if for the moment we neglect the effects of the admixture of the broad-headed immigrants with the tall dolichocephalic Northern Europeans before they reached Britain; and, in virtue of the geographical situation of the two countries, the proportions of these ingredients were not unlike.

It is not a little amazing to find serious anthropologists raising objections against this interpretation of the process of mixing in Britain (and the same statements apply to Egypt with equal force, or rather lack of it) on the plea that copper implements are often found buried with narrow-headed people, whose remains had not been cremated. That such flimsy statements as these should be served up as arguments to cast discredit on Thurnam's famous dictum, "Round barrow, round skull," can only mean that there must be a

singular poverty of valid objections to the commonly accepted account of the coming of broad-headed man. Neither Thurnam nor any other serious student can be so stupid as to pretend that, when a few broad-headed people came to Britain and taught its dolichocephalic population new burial customs and the use of bronze, all the narrow-headed people at once vanished, not leaving even their skulls to reveal their former existence ! The bulk of the British people (as also was the case with the Egyptians) always remained dolichocephalic.

The practice of incineration, brought into Europe by the Asiatics, obtained no foothold in Egypt at any time, and in Britain it did not wholly displace the custom of inhumation. Thurnam's dictum means that round skulls are distinctive of round barrows, not that every skull from a round barrow will necessarily be broad—an altogether inconceivable proposition ; for we know that the major element in the constitution of the Bronze Age people in Britain, like that of the "Giza population" in Egypt, was dolichocephalic.

It may be asked why, if the broad-headed people who entered Europe at the end of the Neolithic period were part of the same racial stream with which the population of Egypt was being diluted in the Pyramid age, their influence upon the customs of the two countries was so fundamentally different. The Asiatic immigrants

carried the knowledge of metals to Europe, but not to Egypt, for the simple reason that they obtained this knowledge from their intercourse with the Egyptians and simply handed it on to Europe. The so-called "Alpine Race" imposed their burial practice of cremation upon Europe, but not upon Egypt. Fifty centuries ago, when the events we are discussing took place, Egypt was the one great civilized state that had reached maturity; her customs were already fixed by rigid conventions, and the traditions and the practices of centuries were not to be overthrown at the wishes of a few immigrants from some weaker state still in the infancy of civilization. In Europe the circumstances were entirely different: the Asiatic immigrants were far more numerous, and there was not such a marked contrast between the two cultures as secured to Egypt an immunity from the disturbance of its own customs. Moreover, the Asiatics in Europe were the possessors of the knowledge and the secret of the prowess of the Egyptians, which gave them the power to gain an ascendancy over Europe and impose their own customs upon its people by force, where persuasion or example may have been impotent.

Egypt did not exert its influence upon Europe and its population wholly through the intermediation of the so-called "Alpine Race." There were other channels by which the knowledge of her arts and crafts could reach the western world,

without the help of broad-headed people as middlemen—for there was the northern coast of Africa as a western pathway from Egypt; and from it ferries to Crete and Greece, to Sicily and the isles and Italy, to Sardinia, and, last and easiest of all, to the Iberian peninsula.

Within recent years the evidence that has been accumulated by investigators working in the various localized fields of this wide area—Tripoli, Tunis, Algiers, Morocco—in Crete and the Ægean; Sicily, Malta, Pantellaria, and Italy; Corsica, Sardinia, and the Balearic Islands; Spain and Portugal; and the Canary Islands—all falls into line and tells one consistent story. Much of the evidence in contemporary literature that seems most puzzling and paradoxical to the worker whose gaze is riveted on one small speck in this wide domain, or most hopelessly bewildering to the compiler of widely scattered observations, who has no intimate familiarity with the progress of events in Egypt, finds a ready explanation in the light of the history of those events in the Egyptian Delta, which we have been discussing in the last few chapters.

When examining the distribution of "Giza traits" in the large series of skulls mentioned in the last chapter, I found them fairly abundant in every series of specimens, both ancient and modern, from every part of North Africa, as well as from the Canary Islands, which may be

regarded as the outlying western extremity of the North African ethnic domain.

There is an abundance of evidence of other kinds which supplements and confirms this observation. These data are none the less interesting and valuable because in many instances they came as a surprise to their collectors, who were puzzled to explain them.

The great value of these observations to us in this investigation is the evidence they afford of the fact that the different groups of people settled along the Mediterranean littoral of Africa—in Egypt, Tripoli, Tunis, Algiers, and Morocco—and in the Canary Islands were in free intercourse one with another, so that not only was there a spread of knowledge and of culture, but also a diffusion of blood throughout the whole group. In other words, the alien traits of the immigrants in the Delta were disseminated not only throughout the population of Egypt into Nubia to the south, but also to the west, along the sea-coast, until the whole population of North Africa became permeated with the influence of these Asiatics.

Von Luschan and others frankly recognized this influence in the Canary Islands, where they refer to the Armenoid strain in the population ; and before him de Quatrefages and Hamy published pictures of Guanche crania, which are indistinguishable from those obtained at the Giza necropolis. In the Guanche skulls in the Museum of

the Royal College of Surgeons all the peculiarities of cranial form, orbits, nose, and jaw that occurred in the people of Memphis at the time of the Pyramid-builders are found exactly reproduced.

Sergi has also recognized the widespread occurrence of these alien Asiatic skulls, which he distinguishes by the term " sphenoid," throughout the whole North African littoral. The presence of this broad-headed element in the population of North Africa has had a very disturbing influence upon the views of many anthropologists. It is seen in its least mixed form in the little island of Gerba and on the adjoining mainland of Tunis, but it is also widespread throughout the Berber or Libyan population. H. Martin compared it to the Breton type ; and, as this is " Alpine," it quite accords with what has been written earlier in this chapter. Bertholon was greatly puzzled by these North African brown brachycephalics ; and from the reading of his memoirs, Keane was led to put forward the curious suggestion that the European brachycephalic people came from Africa !

One of the most instructive illustrations of the close bonds of affinity that link the Berber population of North Africa to the Egyptians is afforded by the memoir entitled *Libyan Notes*, written by Dr. Randall-MacIver, with the help of the late Mr. Anthony Wilkin ; although the authors drew from their researches a conclusion that is almost

precisely the reverse of the meaning their data convey to me.

It is only right to explain that Randall-MacIver was comparing the modern Algerian and his dolmen-building ancestors on the one hand with the Proto-Egyptian on the other: and he came to the conclusion that "the prehistoric Egyptians were not Libyans." But if he had employed the same method in Egypt, and substituted Lower Egyptians for Algerians, he would have reached precisely the same result; and presumably he would have had to choose between the two alternatives of questioning the validity of his methods or of saying that the "prehistoric Egyptians were not Egyptians." There can be no reasonable doubt that the Proto-Egyptians were the kinsmen of the Proto-Libyans; but both were modified, probably about the beginning of the third millennium B.C., by having an element of brachycephalic Asiatic grafted upon them.

The interesting series of crania obtained from the dolmens of Roknia by General Faidherbe has been reproduced in *Libyan Notes* (Plates xviii and xix), and they give a most instructive demonstration of the striking similarity to a random collection of Egyptian skulls of the period roughly contemporaneous with this ancient Berber material. While some of them are indistinguishable from Proto-Egyptian skulls, two of the series (Nos. 3 and 4) are typical members of the same alien

series as were found at Giza ; and the rest (the majority) show the distinctive blend of Proto-Egyptian and " Giza " traits that we call simply " Egyptian."

Sergi has already called attention to the Asiatic elements in this series ; but as he had had no opportunity of learning that the cranial form which he calls *beloides ægyptiacus* is not Egyptian, but Asiatic, he has unduly minimized the latter influence in North Africa.

The evidence that has been accumulating during the last few years, archæological and anatomical, all points to the conclusion that early in the Neolithic period the population of the northern littoral of the Mediterranean and the islands came in great part from the African shore. The general evidence in support of this view has been so fully set forth and summarized by Sergi, Ripley, and others, that I need not discuss it here : and the data for the special cases of Crete, Italy, and the neighbouring islands have been clearly explained by Mr. and Mrs. Hawes (*Crete, the Forerunner of Greece,* published in this series), Dr. Duncan Mackenzie in his article on Cretan Palaces, and more especially Mr. T. E. Peet in his valuable book summarizing the present state of knowledge regarding *The Stone and Bronze Ages in Italy* and the islands.

I shall assume that the whole of this Neolithic culture of the Mediterranean littoral was originally

developed by one people, which became scattered in lands widely sundered by the great midland sea, where each tended to become specialized in a manner peculiar to itself. But at the end of the Neolithic period came the dawn of the Age of Metals—the Æneolithic period of Italian anthropologists—when the new knowledge born in Egypt came to each of these Neolithic centres and inaugurated a new era of progress. It is still a matter of perplexity how and by what means the new culture was spread abroad. The events which we have been following in the preceding pages throw a flood of light upon these perplexities, as I shall attempt to indicate in the next chapter.

The literature relating to North Africa will be found summarized in Deniker's *Races of Man* and Keane's works.

CHAPTER X

EGYPT'S INFLUENCE IN THE MEDITERRANEAN AND WESTERN EUROPE

EGYPT exercised a three-fold influence upon the development of European civilization. By virtue of her own precocious acquirement of a culture far surpassing that of any of her contemporaries she came to occupy a dominant position among the kindred populations, who were still in the Neolithic age for centuries after Egypt had left it behind; and there can be no doubt that her influence must have slowly passed from tribe to tribe until the whole Mediterranean littoral became permeated with the leaven of Egyptian culture, which thus affected at their source the very springs of European civilization.

In a previous chapter it has been seen that her influence was brought to bear in a second and indirect manner, when at the dawn of her history she ventured on foreign enterprises, and, incidentally, taught the Asiatics the value of metal weapons, which knowledge gave them the passport into Europe and the means of inaugurating one of the really great epochs in the world's history.

But there was another, which was also a less indirect, way in which Egypt directed the thoughts and energies of the peoples around the Mediterranean—the influence exerted upon other nations by the Egyptians themselves or by people who had actually seen their achievements in the Nile Valley.

It is of the utmost importance to emphasize this means by which Egypt was able to impress her culture and her knowledge of copper upon Europe without the intermediation of any alien broad-headed middlemen. As Sergi has clearly shown, the presence of a few alien crania in North Africa does not in any way invalidate the contention that the Afro-Mediterranean civilization was purely indigenous.

The power wielded in this way, perhaps unconsciously, by Egypt was manifold in its manifestations, and spread over a very wide span of time. It must have begun to have effect in Neolithic times ; as we shall see in the following pages, in Early Dynastic times it became a force, whose range was limited only by the bounds of the world of that remote civilization. At every epoch in later ages, at one time through the influence of the Jews and other Asiatics, at another through the intermediation of the Greeks and Romans, and still later of the Arabs, the world at large, and especially Europe, has received the impress of Egyptian civilization, in its customs,

its arts and crafts, its medical and surgical knowledge and even in its beliefs and its literature.

There is only one instance of the operation of this third category of Egypt's directive power that the limitations of space will permit to be discussed here. It is one to which I have already referred in the first chapter: but I come back to it again because it serves a second purpose, namely, of throwing a sidelight upon a much misunderstood phase of the Æneolithic period, which has been a constant source of difficulty for many years.

For my purpose the simplest and most illuminating specific problem of the incoming of the Æneolithic period is that presented in the case of Italy. Precisely those contrasts in the mode of birth of the Bronze Age and its accompanying circumstances in different parts of the peninsula, which reduce many scholars to despair of seeing any order emerge from the puzzling confusion, are really the clearly blazoned sign-posts pointing out the pathway taken, not only by Italy, but by the rest of the Mediterranean peoples also, when emerging from the Stone Age.

In his admirable digest of the literature relating to the transition from the Age of Stone to that of Bronze, Peet has set forth these difficulties quite frankly. After telling us that the Neolithic people knew neither the dolmen nor the rock-hewn sepulchre, and pointing to evidence which suggests

that the Æneolithic period witnessed the simultaneous appearance in Italy and the islands of the rock-tomb and the megalithic monument, he makes the statement that " we have no particle of evidence for determining the relation " of the one to the other.

Although he justly discards the suggestion of Pigorini that the complete absence of these structures in North Italy is due to the lack of the necessary material, and explains their presence in the south and in the islands by the statement that this region " from its position may well have become subject to the influence of some such movement from Africa to Europe as that by which Montelius explains the dolmens of West Europe and Scandinavia," he " cannot yet definitely say whether either was brought to Italy by an immigration of new people." Moreover, " internal evidence has as yet given no clue as to the place of origin of either type."

He goes on to explain the still more difficult aspects of the racial problems involved in this discussion. If the new customs came from across the sea, did new immigrants introduce them, or were simple trade relations responsible for their entry into Italy? Against the former is the absence of any evidence of the coming of any new people: whereas the second proposition is not a credible explanation, for a people are hardly likely to change customs so sacred as methods of

burial on mere hearsay. He sums up this discussion with this statement: "The only certainty is that, until further excavation has been carried out, Italy can prove little or nothing with regard to this most difficult of problems."

But if the study of the Italian material reduces its devotees to such a state of despair, those who look across the Mediterranean from Egypt are filled with gratitude for Peet's most useful and illuminating complement to the Egyptian side of the story.

In his monograph on the *Early Dynastic Cemeteries of Naga-ed-dêr*, which forms the archæological basis of this book, Reisner has given a convincing account of the immense influence the invention of metal tools exercised upon the development and scope of the arts and crafts in Late Predynastic and Protodynastic times in Egypt. The new implements were put immediately at the service of the stonemason and the carpenter, who soon acquired an extraordinary skill in working stone and wood. The religious beliefs of these Early Egyptians were such that these highly skilled craftsmen put their best work into the construction of funerary monuments. The humble pit-like grave scraped in the sand soon gave place to the rock-cut chamber or the more imposing tomb, built of gigantic blocks of stone, as is witnessed by the Pyramids and the temples attached to them.

The newly-acquired mastery over the hardest materials, which the invention of metal tools secured, stimulated the Egyptian craftsman in the display of his abilities. In his zeal he simply ran riot in stone. He created the vastest monuments the world has ever seen ; and alongside his Pyramids he built temples consisting of colossal blocks of granite, limestone, and other materials. The sculptors of Khephren's time carved out of the solid rock, upon the eastern side of his Pyramid at Giza, a gigantic representation of the head of the King himself on the body of a lion (as Reisner has recently shown) ; and so created the Sphinx, which has been one of the wonders of the world for forty-six centuries.

The importance of the sun in the Egyptian pantheon became greatly enhanced during the Fifth Dynasty, possibly under the influence of the Asiatic sun-worshippers, who by that time had become so large an element in the constitution of the population.

The kings of the Sixth Dynasty built temples to the sun-god *Ra* (as Borchardt's excavations at the Pyramids of Abusir have shown) and in each of them erected a column pointing to the sky.

Thus at the commencement of the historic period the Egyptians were building vast stone monuments of varied forms, primarily as sepulchres and secondarily as temples ; and it is of the utmost importance in this enquiry to emphasize

the fact that every stage in the evolution of this craft has been revealed in Egypt, and that the art of stone-working on a big scale had its origin in the invention of metal chisels.

Meyer tells us in his History that at the beginning of the Dynastic period Egypt included that strip of the Mediterranean, west of the Delta, known in later times as Marmarica: this would form a link between the Nile Valley and Tripoli, and through it with the rest of the northern shore of Africa (see Map 3). In the last chapter I discussed the westward diffusion of the Delta population until it reached even to Mauretania and the Fortunate Isles. There can be no doubt that a similar movement, both of peoples and customs, had been taking place long before such tell-tale alien skulls were left to provide the tangible evidence of these migrations. But though there may not be a persistence of human bones to demonstrate this intercourse between the neighbouring nations there is man's handiwork, which tells the same story.

The account of the Æneolithic remains in Pantellaria, Malta, Sicily, Southern Italy, and Sardinia, which Peet has given so clearly in his book, is complementary to the Egyptian evidence in almost every detail. Rock-cut tombs and megalithic monuments appear, apparently simultaneously, at the dawn of the Age of Metals: there is no evidence of any change in the racial traits of the people to associate with this cultural change,

although it is patent that the new customs must have come across the sea from the African shore.

The inspiration to make rock-cut sepulchres came from Egypt (see Map 3, A), and such tombs were not made until Æneolithic times because they followed the invention of copper tools in Egypt. There was no pronounced change in the physical characteristics of the people, because the people on both sides of the Mediterranean at that time were of the same race, Proto-Egyptians and Proto-Libyans, Proto-Siculans and Proto-Italians being all members of one and the same family. Nevertheless Sicily was being subjected to the same kind of Asiatic infiltration as we have seen in Egypt and the rest of North Africa, for Sergi found among the skulls obtained by Orsi from Æneolithic tombs some " foreign shapes, which he judged to be of Asiatic origin, chiefly from the region of the Caucasus and Armenia " (page 277).

The finding of such alien skulls scattered throughout the more westerly parts of the domain of the Brown Race supplies tangible evidence of the western movements of the people themselves, and not merely of ideas and culture.

But, it will be asked, how can we explain the dolmens ? The Italian evidence, taken in conjunction with what we know of Egypt, suggests one obvious solution.

I have called attention to the fact that the

Egyptians were building a variety of stone edifices on a large scale; and when we recall the marvellous technical skill displayed at the beginning of the Fourth Dynasty (*circa* 2900 B.C.) in building the Pyramids, and in moving those vast masses of stone found, for example, in the temple of Khephren, the so-called "temple of the Sphinx," it is quite conceivable that the kindred peoples, who for ages had looked to Egypt for their inspiration, would strive to imitate these impressive monuments, without, however, possessing the technical skill to construct any edifice at all comparable with them.

It is not necessary to postulate any great racial movements to explain such transmission of customs. That it may have been the mere idea that spread is suggested by the varied way it was put into practice in the various lands. Yet the positive evidence that there was an actual movement of people, no less than analogies from other parts of the world, inclines me to adopt the view that the sudden change of customs in southern Italy was due to the actual immigration of people, who had previously come, either directly or indirectly, under the influence of the Egyptians.

It must be something more than a mere coincidence that these megalithic monuments first make their appearance in association with rock-cut sepulchres, and in the Æneolithic Age, i.e. shortly after these Mediterranean lands had

learned of the Egyptian invention of copper, and of the Egyptians' new practice of hewing rock-tombs and building megalithic temples. Archæologists tell us that copper was introduced into Crete about the year 2800 B.C. If the Æneolithic Age began in Sicily and Southern Italy a little later it would be in full accord with the foregoing argument.

There is one scrap of evidence, which proved very puzzling to the Italian archæologists, that lends strong support to my contention of the Egyptian derivation of all these changes that mark the sudden advent of the Æneolithic period in South Italy and Sicily. For the Italians, like the Egyptians, gave up the Neolithic custom of burying their dead in the crouched attitude, and placed them fully extended in the rock-cut tombs. In Egypt, however, there was a long interval between the invention of the rock tomb and the relinquishing of the flexed posture, an interval of several centuries over which the process of gradual evolution was spread, and in which the feelings of the people were able to become reconciled to the change without any sudden violation of their conventional ideas. But in Italy the custom must have been borrowed from Egypt, because the change came suddenly, and along with the rock tomb and the Æneolithic period. Yet occasionally there is seen some evidence of the transitional stage. Thus Peet describes a rock

tomb at Cantalupo Mandela, in Middle Italy, containing two skeletons, one extended, the other slightly contracted.

Reisner and Mace have described the practice of extended burial as beginning in Egypt in the Fourth Dynasty, and not becoming common until the Sixth: this would suggest the improbability of the introduction of these customs in Italy much before the year 2500 B.C.

The apparent paradox that proved so disturbing to Peet, namely, the sudden change of burial customs in South Italy without any evidence of a change of race, is explained by this Egyptian evidence. If there had been an influx of Egyptians it could not be detected because of their racial identity; and even without an immigration a people might adopt from a kindred race new burial customs, which are really an evolution of their own, when they would not suffer a much more trivial change coming from an alien source, especially if it came into conflict with their own ideas in such matters.

Thus North Africa and Southern Italy were brought within the sphere of Egypt's cultural influence during the Pyramid Age. But none of these western populations that took their inspiration primarily from Egypt slavishly followed their teachers. One of the most interesting and instructive features of all these Mediterranean centres of culture — Crete, Pantellaria, Malta,

Sicily, Southern Italy, Sardinia, Mauretania, and the rest—is the manner in which each developed in its own distinctive manner the common heritage, and evolved from it a culture which was peculiar to each centre. In other words, it was the idea that spread and not the craftsmen. Thus in Crete, for instance, the Neolithic culture, though unquestionably African in origin, developed along distinctive lines, which justify us in regarding it as something distinct from the Proto-Egyptian and the Proto-Libyan, and worthy of the special designation "Cretan" or "Proto-Cretan." And, similarly, when at a later period Crete received the new knowledge of metals and entered the Copper Age, she assimilated the new learning, and evolved from it a civilization quite peculiar to and distinctive of herself: this is what Sir Arthur Evans has called the Minoan culture.

At the Æneolithic period Crete occupied a unique situation, which was exceptionally favourable to the development of the arts of civilization; and there can be no doubt that she seized her advantage, and turned it to the most profitable account. Her geographical situation as a sea-girt isle was such that, while being exempt from the dominating and overshadowing influence of Egypt, she profited by both of the fertilizing streams of Æneolithic inspiration that had their source in Egypt. Like the other Mediterranean islands which we have just been discussing, Crete must

have been brought under the influence of the southern, or if we follow the nomenclature introduced by Montelius, western stream of Egyptian inspiration, that which was diffused by the kindred of the Egyptians, along the African coast-line and thence to the Mediterranean islands. The most obvious effect of this western wave was the incentive to the creation of stone buildings and other monuments.

But Crete, unlike the other islands that we have been discussing, was also affected in a most intimate way by the eastern (northern) stream of Egyptian inspiration, which was carried into Crete, as it was into Europe also, not by the Egyptians themselves or their kindred, nor even by people who knew Egypt, but by the broad-headed, long-bearded Asiatics, who learned of copper and its usefulness by contact with the Egyptians in Syria (see Map 3, B).

Boyd Dawkins and Hawes (*Crete, the Forerunner of Greece*, chapter ii) examined series of skulls from Crete and found amongst a majority of crania precisely similar to those of the Proto-Egyptians, a few typical examples of those broader-headed Asiatics, such as we have found scattered throughout the whole of the domain under consideration ; and we can have no doubt that these people began to make their way into Crete, from Anatolia perhaps, at the time when the diffusion of the knowledge of copper was beginning.

Italy also, like Crete, was subject to the influence of both the northern and the southern streams of Æneolithic inspiration (see Map 3, A and B); but was not stirred into such vigorous and luxuriant growth as Crete, perhaps for two reasons. Crete was nearer the fountain-head of the new knowledge, and perhaps, to use the language of the physicist, received a larger charge of its influence: but what is more important is that the whole of Crete was no doubt subject to *both* streams, whereas North Italy was subject only to the northern stream and South Italy only to the southern stream: in other words, neither half of Italy came under the influence of both forms of stimulation, and moreover, the potency of both was no doubt in Italy's case more attenuated by the distances they had travelled before reaching the peninsula than was the case in regard to Crete, placed as it was nearer the original centre of diffusion of both streams. For, as Sergi says, when expressing not only his own views, but also those of Montelius: "It appears that there has been a movement of culture passing from one spot to another, as from a focus of production; but on the other hand, there appears to have been as it were the movement of a wave propagated from a centre, in such a manner that the waves, as they became more remote from the centre, grew broader and less marked, until they disappeared, leaving only the signs of the move-

ment." The centre of distribution postulated by Sergi was located in Egypt.

The realization of the twofold nature of the operation of Egypt's influence upon Europe at the end of the Neolithic Age, which ushered in the Bronze Age, or that anticipation of it called by the Italians Æneolithic, clears away a host of difficulties that have puzzled ethnologists ever since serious discussions of these problems were first begun.

Although the evidence is quite definite and conclusive that it was the invention of metal tools in Egypt which was responsible for the first efforts at working stone on a large scale and the building of stone edifices, it does not follow that all the early stone buildings and monuments in other lands were made of materials cut and worked with metal tools. The knowledge of the Egyptians' architectural triumphs probably became diffused among the sister nations along the North African littoral long before these peoples had learned the new craft of metal-working: moreover, even when they had obtained the new tools, they had still to acquire the skill to use them. But long before this schooling was completed it is more than probable that the Libyan people were stimulated by the knowledge of what the Egyptians had accomplished to attempt to erect buildings with the rough blocks of stone, shaped by the forces of Nature or their own rude efforts, by pound-

ing and chipping the natural masses with lumps of basalt or other hard rock.

The varieties in the form of the Egyptian monuments were reproduced in the dolmens, menhirs, cromlechs, and all the other forms of Æneolithic architecture. The distribution of the megalithic monuments and other stone buildings that have been assigned to the same (Æneolithic) age bears ample witness both to the source and the lines of spread of what Montelius and Sergi call the western stream : but it diffused from Egypt not only towards the west, but also to the east, towards the Sinai Peninsula, where the stream bifurcated, one branch going to Arabia, and perhaps also to Persia, and even India, the other north, to Syria, Asia Minor, and across the Black Sea to South Russia.

It may be that the main lines of diffusion of the craft of megalith-building followed the distribution of the Egyptians' kinsmen of the Brown Race.

The main stream, however, was the western one. I have already referred to its spread through Tripoli, Tunis (and the Mediterranean islands and Southern Italy) into Mauretania, where the art of building megalithic structures took root and developed exceedingly, specializing along lines peculiarly distinctive of this real home of the dolmen, as distinct from its Egyptian forerunner, the more finished, but far more ancient, stone tomb and mortuary temple. From Mauretania this

A and A'—The lines of spread of Megalith-culture from Egypt.

B—The migrations of metal-bearing brachy-cephalic peoples.

P—The island of Pantellaria.

MAP 3.

stream of culture crossed the Straits of Gibraltar, passed through the Iberian peninsula to Gaul and Britain, and up the Frisian coast to Denmark and Scandinavia. The whole of this extensive itinerary was blazoned with a great variety of stone monuments and buildings, thousands of which remain to this day to point the way one of the chief elements of which our own early civilization was compounded reached Western Europe from the place of its origin in the remote Egyptian Thebaid.

Earlier in this chapter evidence was cited which seemed to point to the Sixth Egyptian Dynasty as approximately the time of the commencement of this western march of culture. By that time we know from actual observation that the population of the Egyptian Delta was thoroughly permeated with Asiatic (Armenoid) elements. Tangible evidence of the fact that the effects of this admixture spread west, even as far as Mauretania and beyond, is to be found in the skulls obtained from Tunis, Gerba, Sicily, Algiers, Morocco, and elsewhere. It is thus possible that a certain number of the Asiatic traits ("Armenoid," "Alpine," "Celtic") in the population of Western Europe and Britain reached there by a very circuitous course, which passed in succession through Palestine, Egypt (Delta), Tripoli, Tunis, Algiers, Morocco, and thence into Western Europe.

But the bulk of the Asiatic element in the European population entered the continent by the direct route, from Asia Minor to the Balkan Peninsula, and no doubt also by a second way, passing north of the Black Sea ; and thence moved west towards the Atlantic. They came not as one compact horde to witness the end of the Neolithic Age and inaugurate the new culture of metals ; but as a series of waves, sometimes in the form of peaceful infiltrations, at others of military invasions, which continued to beat upon the shores of Europe for more than thirty centuries.

In a previous chapter I made the suggestion that the commonly supposed coincidence of the advent in Europe of the broad-headed people (and their customs) and the Bronze Age might be explained by the hypothesis that it was the power given them by acquiring copper implements from the Egyptians, which enabled them to enter Europe in force, and impress their customs upon so large an extent of its territory. But if the broad-headed people were already in Asia Minor and North Syria when the Protodynastic Egyptians first went to the Lebanons to get cedar—and the features of the Giza skulls are positive evidence that the Armenoid people were actually there—then we have no reason to assume that Armenoids may not have been crossing the Hellespont into Europe for many years before they came into touch with the Egyptians and learned of the dis-

covery of copper. So that there need be no cause for surprise because the remains of Asiatic people have been found in European graves (and especially in the Balkan and Danube regions) of undoubtedly Neolithic Age. But my thesis is that the acquisition of metal implements by the people of Asia Minor, somewhere about 3000 B.C., gave them the power to establish themselves in Europe *in great numbers*, and to impress their own customs *by force* upon the populations of the territories they occupied.

It has ever been a difficulty to explain why most of the territories in Europe occupied by these Asiatic immigrants should be devoid of megalithic monuments. At first sight this difficulty may appear to be still further accentuated by my hypotheses, that both the megalith-builders and the copper-workers drew their inspiration from Egypt.

For, it may be argued, if the Asiatic people of the Anatolian peninsula obtained their knowledge of copper from the Egyptians, why did they not become acquainted also with the stone buildings of the Egyptians? The answer is simple enough. The Armenoids of Asia Minor, who were about to emigrate into Europe (Map 3, B), did not visit Egypt and see (or even perhaps hear of) her great monuments; but they saw, and, no doubt, also felt, the copper weapons on the battlefields of North Syria, and learned their usefulness and power in

the school of actual experience (see Figure 7). To put the matter in a cruder but more emphatic form, we might say that in their foreign adventures the Egyptians did not take their stone buildings with them, and even if they bragged about them in the market or the camp, their talk would make less impression than the metal weapons, of the practical usefulness of which they gave, no doubt, many demonstrations. Thus it was the use of metals, and not the art of building in stone, that the Asiatics acquired from the Egyptians and took with them as an indirect contribution from Egypt to Europe.

But a process of gradual diffusion of knowledge amongst neighbouring peoples, linked by community of origin and similarity of beliefs and customs, was responsible for the extension of the practice of building in stone to the North African peoples on the west; and for precisely similar reasons also this custom spread to Sinai and Palestine on the east (Map 3, A and A^1).

The two streams of culture, so different in their nature and effects, both took their origin in Egypt. One pursued its westerly course on the north of the Mediterranean and was directed by an Asiatic people, who, along with their own peculiar customs, beliefs, and languages, brought the Egyptian knowledge of metals. The other stream moved west along the southern shore of the Mediterranean, amongst the kinsmen of the Early Egyptians and

the Neolithic Europeans, mingled with only a very slight Asiatic element; hence it produced no violent changes in customs or beliefs, but merely carried to the kindred peoples of the west a knowledge of the higher developments of their own arts, especially that of working in stone, to which their more precocious sister-nation on the banks of the Nile had attained.

These two divergent streams eventually came together again on the western shores of Europe and in Britain, where they mingled and gave a distinctive character to the culture of this part of Europe.

In the references to Europe that appear in this book I have been concerned only with a tentative appreciation of the influence exerted by the Ancient Egyptians and their culture. It must not be supposed, however, that while pursuing this aim I have had any thought of minimizing the importance or extent of the contributions to the civilization of Europe made by her own autochthonous population.

European civilization has attained its commanding position in the world, not in virtue of Asia's and Africa's gifts, either of knowledge or of men, but by reason of the virility of her own people, and especially of those belonging to the blond Nordic Race. They assimilated the wisdom of Egypt and Asia and adopted their arts and crafts; but they used the new knowledge to

develop their own culture and raise it to a higher plane. And if this civilization was born amidst the strife of conflicting peoples, with diverse customs and beliefs, the form it eventually assumed was determined by the distinctive mental and moral qualities of her own people. It was their discrimination and initiative that enabled them to graft certain elements of the immigrant cultures on to their own customs, beliefs, and languages; no less than their courage and restraint that made them in the end the ruling and controlling caste in their own country.

The composite population of Europe thus became heir to the culture of three continents. In this book I have discussed the manner of coming of the Age of Metals, which had its birth in one of them.

For the detailed presentment of another way of looking at the matters discussed in this book, and especially in this chapter, see De Morgan's *Les Premières Civilisations* (Paris, 1909). For further information on the Megalith-builders see the works of Peet and Keane (quoted above), where further references will be found.

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